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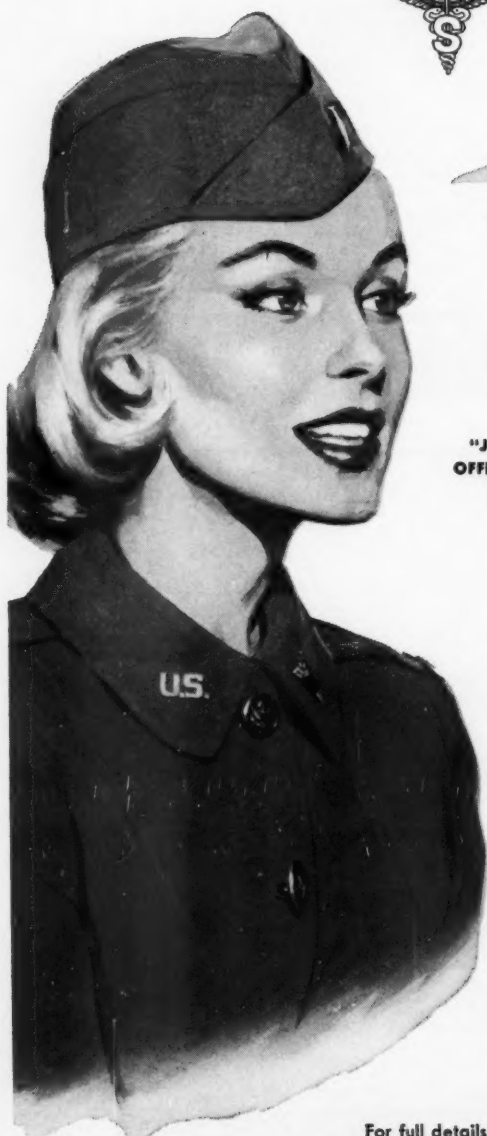
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LAW AND THE YOUNGEST MEMBER OF THE MEDICAL PROFESSION

HELEN CREIGHTON, R.N., J.D.

As a profession grows, so grow its legal problems and its entanglements.

That means occupational therapists can just as quickly be sued for negligence, malpractice, false imprisonment and breach of contract as any nurse, doctor or hospital.

Occupational therapists are as responsible as any other professional group of the medical world and all must understand not only your rights and liabilities, but see that your educational backgrounds are of the finest and your minds open to all new facets of therapy.

In speaking of negligence, the Somera case¹ might clarify a few points for you. In that case which arose more than a quarter of a century ago, a surgeon who was operating on a tonsillectomy patient asked the head nurse, Miss Somera, to prepare 5 cc. of 10 per cent cocaine with Adrenalin for administration to the patient. The nurse verified the order and prepared the medicine. A few minutes after the injection was given to the patient he showed symptoms of convulsions and died. In his order the surgeon meant "procaine" and not "cocaine." Of the various doctors and nurses in attendance at this operation, only the nurse, Miss Somera, was found guilty of manslaughter based on negligence, for which she was sentenced to a year in prison and fined 1500 pesos. Many people on hearing the decision of the case, expressed surprise.

However, it is pointed out that Miss Somera's negligence consisted in carrying out an order which she knew or should have known from her training and experience was not a reasonable one. No one is disputing the fact that the surgeon was negligent in giving the order. Nevertheless, it was Miss Somera's negligence which

was the cause of the patient's death—hence the conviction and fine.

Another case in point involves an error of judgment. The case concerned a student nurse who was to give a bath to an eighty-year-old patient. Siderails were required on the beds of all patients over seventy years and when the nurse started to bathe this patient she let the rail down on one side. At that point, she noted she had no wash cloth and went to the other side of the room to get one. She did not replace the siderail. The patient reached to get a Kleenex from her bedside table and in doing so fell, breaking her hip. The patient's family sued the student, the director of the school, the hospital superintendent and the doctor. The patient was awarded a verdict for damages. While the patient was rational, she nonetheless was entitled to protection as an older person.

This case is important in the light of work occupational therapists do. Some of the numerous handicaps of patients are: muscular dystrophy, elderly patients with fractures, cardiacs, Parkinson's syndrome, etc., and one should be aware of the standard of protection the occupational therapist must necessarily give as an "ordinary, reasonable person in similar circumstances."

A hospital, an institution, a physician cannot answer for you. The occupational therapist must answer for himself at law. Your work, education and experience, are all factors considered in determining whether you acted as an ordinary reasonable person in similar circumstances. By way of illustrating the point, there was a case where a woman patient was burned by a hot

¹Assistant professor, Georgetown University School of Nursing, and author of *Low Every Nurse Should Know*, W. B. Saunders Co., 1957.

water bottle. The patient had asked the doctor to have the nurse fill the bottle with boiling water. The nurse did. The patient was burned.

The law asks: (1) "What caused the patient to be burned?" The hot water bottle. (2) "Who did it?" The nurse. (3) "What will a reasonable nurse do in similar circumstances?"

The next question which arises is: Can anyone else be held responsible in such a case? If the nurse were a private duty nurse, "no," because she is an independent contractor. If the nurse were a hospital employee, the "master-servant rule" is involved. As occupational therapists are apparently employees of institutions in which they work, an understanding of the master-servant rule is important. Under the master-servant rule, if an employee injures someone during his employment, then the employer can also be sued. You can appreciate that one tends to sue the person with the most money.

As an occupational therapist you are always answerable for your own actions but in addition, you may render your employer liable, too, so that the injured person may join both employee and employer in a suit and have a better chance of collecting damages.

Some employers may be "charitable institutions." In many jurisdictions, charitable institutions are not liable for the wrongs or negligence of their employees. Hence, an injured person would have no one left to sue but the occupational therapist.

You must check the law in your jurisdiction. In the District of Columbia charitable institutions are answerable for wrongs of employees—the decision in the landmark case of *Hughes v. President and Directors of Georgetown College*.²

We all are familiar with the definition of law as a "rule of civil conduct prescribed by the supreme power in a state, commanding what is right and forbidding what is wrong."³ Woodrow Wilson extended it somewhat further in his definition by considering law as "that portion of established thought and habit which has gained distinct and formal recognition in the shape of uniform rule backed by the authority and power of government."⁴

The primary purpose of law is said to be the promotion of the general good by the regulation of human conduct in order to protect the individual from other individuals, groups or the state and vice versa.⁵

We realize that law is not static but evolves and develops along with people, professions, their government and the age. The legal rights of people are defined to mean that which a person is entitled to have, to do, to receive from another whose duty is imposed within the limits prescribed by law.

There are two kinds of rights: primary and secondary. Primary rights are those which result from a person's existing as a member of society. In the United States a citizen's person and property are held inviolate and others owe him a duty to respect it. Violation of such a right is considered a civil wrong, a tort, a crime, depending upon its magnitude and whatever the statutory law declares it to be. Libel, slander, negligence and trespassing are common examples of civil wrongs or torts.

Secondary rights are those superimposed on primary rights as a result of individual action and decision. They are not held against all other persons generally, but against a particular person or persons. These rights arise as a result of a contract.

Remedial rights are sometimes referred to as a third form of rights. A remedy is the means by which a right is enforced.⁶ They come into existence on violation of primary or secondary rights. They are rights resulting from a personal injustice and held against the person committing a legal wrong. "A remedy is the appropriate form of relief by which that remedial right may be enforced."⁷

Professional stature requires both knowledge of law and its relation to professional responsibility and development. Your own American Occupational Therapy Association has its constitution consisting of twelve articles. It outlines your educational requirements, aims, ethics, criteria and rules of the profession, conduct and the like.

Unlike physicians and nurses, occupational therapists are not licensed by states pursuant to licensure acts. In recent years, on the state level, all but two jurisdictions have licensed practical nurses. Registration as an occupational therapist differs from securing registration as a nurse in this way:

Pursuant to Article VII of the constitution of the A.O.T.A., a registration committee establishes and administers the examination for admission of candidates to the national register of the A.O.T.A. In the case of a registered nurse, she receives her license through a licensing group designated by the state. While other individuals may do nursing, any person who wishes to be known as an "R.N." with all its legal connotations, must comply with the requirements of the licensure act. In other words, an occupational therapist secures a registration certificate from the professional association whereas a registered nurse must secure registration from the state in which she practices.

As yet there are few legal cases of record involving occupational therapists, but this does not mean there will not be such cases. Your

profession is growing rapidly; the scope of work and the number of occupational therapists increases, and with it will come, no doubt, litigation of some sort. As in similar fields of employment the legal aspects constitute a larger problem than many realize.

Another way in which the law pertains to occupational therapists, as well as to all people who work, is in regard to negligence. By negligence we commonly mean an unintended injury to a person or property. Because we are human and not always as careful as we should be, things happen.

Your work by its very nature carries with it the potential of hurting people. We are all subject to the fundamental rule of negligence, i.e., that we so conduct ourselves and our property as to avoid injury to the person and property of others. This is an absolute duty each owes the other. One may be liable for causing an injury to another by carrying an umbrella in an upright position or for throwing a lighted match, or for the result of any act that a "reasonable, average man would not do."⁸ Liability for negligence does not depend on a legal relationship or a contract between the persons.

Negligence is the omission to do something which a reasonable person, guided by those ordinary considerations which ordinarily regulate human affairs, would do, or something which a reasonable and prudent person would not do.⁹ If the negligent act complained of is an act of an occupational therapist, the personal status of the occupational therapist will be taken into consideration—whether she is a student or a registered occupational therapist. The length of time she has been engaged in occupational therapy work, her training, previous experience, etcetera, is pertinent. The standard is a relative one.

Occupational therapists and all professional people are required to keep abreast of current techniques and advances. It is no excuse to plead lack of training in a particular act when such act is practiced universally.

A cleaning woman brought action in court against an occupational therapist for \$19.95, the price of her ruined jacket. The jacket was slashed in six places by a knife wielded by a psychiatric patient while presumably engaged in occupational therapy under direction of the defendant.

The patient had been committed following his slashing and stabbing of several persons. He normally was confined to a locked ward; occupational therapy one hour, three times a week was scheduled for him. While receiving occupational therapy on the day in question, he was carving a linoleum block when the cleaning woman came into the room to empty a trash basket—

her regular job. The defendant was in the room working with four other patients. The plaintiff claimed it was not reasonable for the occupational therapist to allow such a patient to use a knife and, in doing so, she was the cause of the damaged jacket.¹⁰

Malpractice is another professional hazard in relation to the law. It is defined as any professional misconduct, unreasonable lack of skill or fidelity in professional or judiciary duties, evil practice, illegal or immoral conduct.¹¹ The constitution for occupational therapists stipulates you may be suspended at any time for the above mentioned reason.

Generally malpractice suits come from patients who have poor results from treatment. A friendly patient who feels the occupational therapist, the doctor and all other members of the health team are doing their best for him is not the one likely to sue. The need for tactful handling of patients who are somewhat dissatisfied with their care and progress should be apparent to the occupational therapist. Since the occupational therapist may spend more time than the physician in giving care to a patient, it is of great importance how he handles the patient and his family.

You work closely with doctors and must understand the acts of commission or omission that give rise to suits and their problems. Therefore, you should cooperate with physicians and others and keep accurate and complete records on patients concerning their activity, progress, and response, and point of view. Good records can be most valuable in event of a lawsuit.

One recent writer in discussing malpractice gave the following points on how members of the health team can contribute to lessening lawsuits:¹²

1. Always be polite to patients regardless of circumstances.
2. Do not discuss patients' ailments with them.
3. Do not discuss respective merits of various forms of therapy.
4. Never prescribe.
5. Do not discuss other doctors with patient.
6. Keep record when patient does not return as directed.
7. Be alert to hazards.

Another matter which may arise in your work is false imprisonment. Restraining the liberty of a person without legal right to do so is false imprisonment. In fact, there was a case of a patient who had been coming to a hospital regularly for occupational therapy. On one visit he was detained for several hours when he started to leave because he had not paid his bill. This particular case was settled out of court. Similar cases involving nurses and dentists rather than occupational therapists have gone to court.¹³ If

(Continued on page 199)

ART THERAPY AND THORAZINE TREATMENTS

M. B. LIPTON, Ph.D.*

HERMINE DEUTSCH PLOTNICK, O.T.R.**

This is a report on the effect of Thorazine therapy on the art productions of a group of male schizophrenic patients. The information was collected during an experiment involving the use of Thorazine as a therapeutic adjunct in the treatment of schizophrenia. The study was arranged in such a way that several aspects of patient behavior could be evaluated. This report deals in particular with the method and results of just one part of the study, the occupational therapy program.

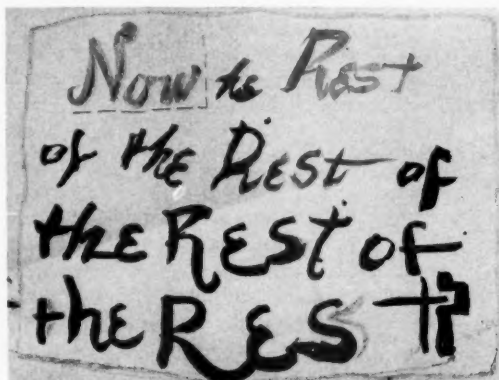
THORAZINE HISTORY

Thorazine was first synthesized by the laboratories of Rhœn, Poulence and Specia approximately ten years ago. The discovery of Thorazine came from the study of numerous amines derived from phenothiazine. The original research work was done in the hopes of discovering new anti-histaminics. It was soon discovered that the new drugs had properties which were quite unexpected. The anti-emetic properties of the drug were the first to be discovered. Following this, it achieved wide popularity in those European countries where prolonged sleep therapy is popular, i.e., Switzerland and Germany. Later, the effects on the various sedatives and narcotics were discovered. Clinical experience with Thorazine in the treatment of a wide variety of psychological and physiological symptoms has led to claims about the value of this drug as both a management device and a therapeutic aid. Drug company surveys report, for example, that it is particularly effective in the treatment of severe agitation and acute anxiety and a variety of neurotic states. Reports from New York State Department of Mental Hygiene institutions suggest that the drug may have even wider application. The present experiment was designed to test the validity of Thorazine as a therapeutic adjunct with a group of male catatonic subjects.

DESIGN OF THE EXPERIMENT

The experimental sample consisted of 15 male chronic catatonic subjects, and a control sample of 15 other patients taken from the same male catatonic population and equated for age, education and years of hospitalization. The number for this experiment was small, but the groups were rigorously equated and comprised a well defined and characteristic schizophrenic group.

Thirty patients who exhibited predominantly catatonic features were selected. Each of these



This patient studied art before the onset of his illness. His drawings always showed a great deal of imagination and facility. Early in the study, he produced drawings of words, and repeated them. Later on, he began to make pictures which were less perseverative and more organized. This patient was treated with Thorazine.

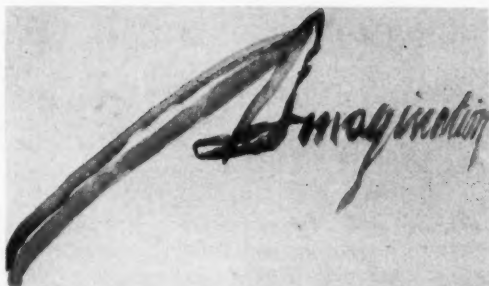
thirty patients was checked thoroughly for physiological contraindications. There were then more extensive interviews with the ward psychiatrist, during which the patient was told that he was to be moved to a special ward where he would receive a new drug.

Ward personnel were not told which patients in the experimental group were gradually introduced to the Thorazine drug. The initial dose was by intramuscular injection of 50 mgs. By the fourth day, the dosage was increased to 350 to 500 mgs, and oral administration was substituted. With slight variation, this dosage was maintained throughout the experimental period. The control group received intramuscular injections of sterile saline during the first three days when the Thorazine was administered by injections. After the third day, the patients in the control group were provided with a placebo (a vitaminette) whose physical appearance resembled the Thorazine capsule.

Clinical observation of improvement or lack of improvement was made by three raters, two psychiatric nurses and one physician, at the termination of the treatment period, and a week after the termination of treatment. Prior to and at the conclusion of the treatment period, the subjects were given a group of psychological tests.

*Norristown State Hospital, Pennsylvania.

**Manhattan State Hospital, Ward's Island, New York

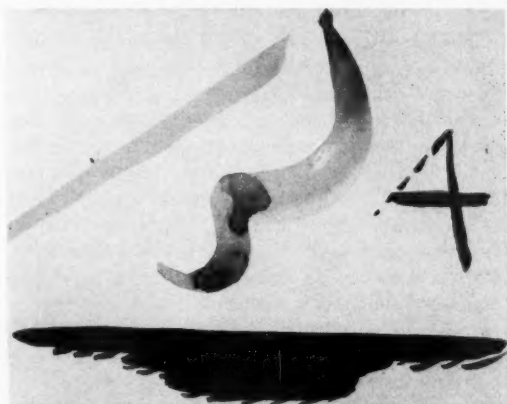


When the patient complained that he did not know what to draw, he was told to draw using his imagination. This is his production.

THE OCCUPATIONAL THERAPY PROGRAM

The occupational therapy program was included in the experiment design as a treatment adjunct. The activity selected for the experiment was painting and drawing in order to provide projective material from the group for evaluation. The occupational therapy procedure was structured as follows:

The materials were placed on a large table in the dormitory so that the patients were able to take what



This charming design which looks like a boat on water was made by the patient just after he was weighed. The attendant told him to remember his weight—134!

they wanted. The art materials were limited to crayons, pencils, charcoal, colored chalks and water color. Such materials as finger paints and oil paints could not be used because of the limited work space. The paper used was 9" by 11" in order to facilitate filing. Colored construction paper as well as manila and white drawing paper were made available to the patients.

A non-directive approach was desirable in order to solicit projective material. It was not always possible to initiate activity with this approach because of the extreme degree of withdrawal in many of the patients. Therefore, the following formula was developed to provide a uniformity of approach. Each step was used until the patients responded. The sequence of steps is from non-structured to specific directions:

1. The patient was told, "Take some materials and use them."



This patient produced numerous drawings, all very similar in character. They lacked any central organization, and are bizarre in their content. Very little color was used. This patient was on placebo.

2. The patient was told, "Take paper and crayons and make a picture."

3. The patient was given materials and told, "Make a picture of . . . (some specific thing)."

4. The therapist demonstrated the use of the art materials on the patient's paper, and the patient was told to continue.

The extent of structuring that the art situation required varied with each patient, and varied with the same patient from day to day. In general, after the patient became accustomed to the routine of an hour and a half of the art work daily, he was able to take the materials himself, and make drawings "to hand in," whereas, in the beginning, only two or three were able to start by themselves.

When a patient drew, he was praised and encouraged, in order to reinforce this positive response. If a patient refused to draw, the therapist told him, "It's all right if you don't feel like drawing today. Perhaps you might want to tomorrow." In this way, the patient was shown that there was the element of choice, and respect was shown for his feelings in the art situation. In this permissive situation, each of the patients did one or more drawings. (There was one patient in the group who was blind, and who was, therefore, not included in the occupational ther-

(Continued on page 199)

HEMIPLEGIA AND CONCOMITANT PSYCHOLOGICAL PHENOMENA

CARL H. DELACATO, Ed.D.¹
GLENN DOMAN²

AMORALITY

* We have found a significant deterioration in the behavioral or evaluative standards of patients following a cerebral vascular accident (C.V.A.). The level of aspiration and the goals of the patient seem to be lowered as a result of the injury to the central nervous system and/or subsequent occupational inactivity and/or great psychological trauma. For purposes of discussion we shall term this phenomenon "amorality."³

Amorality is evidenced by such statements as: "It doesn't matter," "It's good enough," "I don't care," "It's very hard to do it the way you want it done," and so on. Following the C.V.A. the patient seems satisfied with much lesser performance than was the case prior to the accident. * Pride and perseverance toward realistic goals seem to become more difficult. Poor performance becomes acceptable.

Although this is not a universal trait, we have found that it is true in the majority of hemiplegics which we have seen. For example:

Patient A, left sided hemiplegia, middle-aged woman, spent a great deal of time entertaining and leading a very formal social life prior to the C.V.A. Following the injury, Patient A's table manners were poor beyond her disability. She disturbed other patients by extracting her false teeth at the dinner table and rinsing them in a glass of water on the table. (This was not apraxia or agnosia because she was examined for those phenomena).

* * * *

Patient B, left sided hemiplegia. Patient B was an electrician and before his C.V.A. he was noted for his careful and precise work. In retraining, we found that he was satisfied with poor electrical work when evaluating both his work and the work of others. He found it impossible to differentiate work which was careless and work which was precise.

* * * *

Patient C, right-sided hemiplegia with excellent speech rehabilitation, age 34, was a college graduate who was very prim and decorous in all her dealings with her family and professional co-workers. She had never married and prided herself on her proper attitudes and behaviors. Following the accident she discussed with relative strangers such things as her elimination and personal living habits, told off-color jokes, was much more aggressive relative to her own physical wishes and needs, and generally acted in what would have been to her an entirely unacceptable manner prior to her C.V.A.

* * * *

* We have found that patients suffering this loss in level of aspiration and the lowering of evaluative standards respond if they receive occupational therapy as soon as possible following the acci-

dent. We feel that the patient with minimal recovery of co-ordination should be assigned to the occupational therapy department because time is of the essence. Occupational inactivity tends to increase the amoral approach to evaluation, hence we feel that the patient should be occupied as soon as possible with the activities in occupational therapy which he can accomplish during this early stage of rehabilitation. We feel that this should happen even if the activities of which he is capable are not making a significant contribution to his physical rehabilitation. The work product and involvement of the patient must be evaluated by both the occupational therapist and the patient. The patient should be asked what he thinks of his performance and the performance of others. The occupational therapist must constantly help the patient to raise his standards of evaluation.

Patient A was given a table setting assignment, to be accomplished one-handed from a wheel chair as soon as she arrived at the Center. She was asked to evaluate her performance each time and then the occupational therapist evaluated it. She was satisfied with utensils askew at the outset, but gradually her performance improved. As her standards for evaluating her table setting performance improved, so did her table manners. She was soon at the point of having redeveloped standards of behavior in keeping with her experience. Very shortly she desisted from rinsing her false teeth at the table and her table manners soon returned to their former level.

Patient B was assigned to occupational therapy for one hour per day immediately upon arrival at the Center. Although he was in a wheel chair and although his left hand was only assistive, he was assigned to motor rewinding, a task with which he was familiar prior to the C.V.A. A perfectly wound motor was placed in front of him during each occupational therapy session and he was asked to compare his work with the perfect motor at each step.

1. Director of psychological services at the Rehabilitation Center, Philadelphia, Pa.
2. Director of the Rehabilitation Center, Philadelphia, Pa.
3. For other psychological phenomena related to hemiplegia see Delacato, Carl H., "Hemiplegia and Concomitant Psychological Phenomena," *American Journal of Occupational Therapy*, August, 1956.

Patient C. in consultation with the department of psychological services, was assigned to daily occupational therapy and psychological support. Because it was related to her aphasic condition, she was assigned telephone solicitation and telephone conversation activities. Each call or discussion was evaluated by the occupational therapist and by Patient C. in terms of clarity, honesty, ambiguity and general social acceptability. At the outset the patient resisted the occupational therapist's corrections and suggestions. During psychological counselling sessions, Patient C. indicated her displeasure with the too high standards of the occupational therapist. Both the counsellor and therapist sympathetically but consistently insisted upon the program with excellent results in the reestablishment of standards and within three months there was an almost complete elimination of amorality.

"Amorality" as we have described it, is not the result of the inability to perform. It takes place in those areas in which the patient has no disability, as well as those areas in which he is disabled. It is in part the loss of cultural bounds in the form of goals or levels of aspiration as a result of being faced with great psychological trauma. There is a tendency for this to happen in situations of great stress, such as war. Military discipline has as its objective the preclusion of such a negation of standards under great stress. Faced with the great potential disability found in hemiplegia, the daily bounds and goals which the patient has learned educationally become less significant than they were prior to the trauma, hence we have lowering of standards. Another explanation is that the destruction of neural tracts through the C.V.A. make the establishment of new tracts necessary if the former moral or evaluative level is to be re-achieved. There is evidence in the literature that some amorality resulted in the early lobotomies. From a psychological point of reference, such amorality could be ascribed to the severance or disturbance of set neural tracts. Such a disturbance in effect negates part of the patient's conformity to the cultural code and standards. Another possible etiological factor could be sudden vocational inactivity. Such inactivity tends to lower standards and the immediate indication is for occupational therapy as soon as possible.

The phenomenon of amorality might have any of three etiological factors, i.e., disturbed neural tracts, sudden occupational inactivity, or reaction to overwhelming psychological trauma. The therapeutic indications, in addition to the usual rehabilitative activities, are that occupational therapy instituted as quickly as possible following the insult will be of great value in the

efficient eradication of amorality or amoral tendencies.

ATTENTIONAL DISSIPATION

The second phenomenon which we shall present is that of "attentional dissipation." We have all found that our hemiplegias have great difficulty in paying attention to the stimulus at hand. This is evidenced by their inability to concentrate on specific stimuli for any length of time and by their inordinate fatigue as a result of concentrating for short periods of time. Patients with central nervous system (C.N.S.) damage are, as a result, very difficult to teach because they seem unable to concentrate when instructions are being given and seem unable to persist in practicing to acquire skills as a result of the instruction.

This inability to pay attention or to concentrate is not what it appears to be—merely an inability to concentrate. Upon analysis we find that patients with C.N.S. trauma have great difficulty concentrating on a single stimulus because they are unable to ignore other stimuli. They cannot pay attention to the task before them because they are being bombarded by and reacting to the many other stimuli all about them. Through the educational process children learn to pay attention to the stimulus to which they should pay attention. They learn this by being taught to ignore or to be insensitive to other stimuli which are at that time extraneous. For example, a child who is being taught to think about the words he sees before him, must also be taught not to think about the weather, the coming recess period, a pair of tight shoes, and so on, while he is thinking about his reading. In effect he must learn to concentrate his attention on the task before him through ignoring the many other stimuli about him.

Following a C.V.A. hemiplegics find it almost impossible to ignore the extraneous stimuli about them and therefore cannot concentrate on the task at hand. They find, for instance, that they can no longer concentrate on reading materials because their attention is impinged upon by the myriads of stimuli which prior to the insult they could ignore with ease. They must be taught, therefore, to be selective in their reactions to the stimuli in their environment. They must learn not to pay attention to any stimulus but the one at hand. This task is very difficult and results in great attentional dissipation and resultant fatigue.

The occupational therapist plays an exceedingly important role in this area. The occupational therapist must teach the patient (a) to pay attention to the task at hand, (b) not to pay attention to any other stimuli.

(Continued on page 196)

OCCUPATIONAL THERAPY IN PSYCHIATRY

JAMES GALVIN, M.D.¹
JOHN M. MACDONALD, M.D.²
HELEN BALLIET, O.T.R.³

During the last two years, there has been increased emphasis in the Colorado Psychopathic Hospital on psychotherapy as the basic and indispensable method of treatment of psychiatric disease. This has involved setting up a system within which a patient, admitted to the hospital, is assigned to a resident psychiatrist and in addition, assigned to other individual specialists. Thus on the ward, one nurse is given specific responsibility for the patient. The same thing is done with one psychiatric social worker, clinical psychologist, recreational therapist, and members of other specialties as indicated. Changes have also been made in the ways in which the occupational therapy department receives, evaluates and treats a patient.

It goes without saying that a general psychotherapeutic approach to the patient cannot be maintained without useful communication among all members of the team. It is precisely in this area that we have had the largest number of problems and failures.

Communication with the occupational therapy department begins shortly after the patient's admission when a team meeting is held. At this meeting, everyone contributes what information he has about the patient, general dynamics are described, therapeutic goals are set, and individual plans agreed upon in advance for each member of the team.

A new prescription form for occupational therapy has been designed.

COLORADO PSYCHOPATHIC HOSPITAL REQUEST FOR OCCUPATIONAL THERAPY

Name Age Sex
Status Education Occupation
Any physical disability Diagnosis
Ward To be treated: On ward In shop
Current emotional status:
Current ego defenses:
Known skills:
What OT diagnostic procedures are requested?
State occupational therapy objectives:
State dangers and precautions:
Psychiatric resident M.D.
Date

This form is designed so that information given and objectives stated for the patient must be in dynamic terms. It is hoped that this prescription cannot be filled out without considerable and careful thought on the part of the referring psy-

chiatrist. When the prescription is received by the occupational therapy department, if there is any doubt about it, any lack of clarity or any unrealistic requests, the individual occupational therapist discusses the patient again with the doctor until he can satisfy himself that he understands the doctor's opinion of the patient and his therapeutic specifications for the patient.

The occupational therapist then does his own intake interview before the patient actually begins occupational therapy. There is no wish in this interview to imitate the psychiatric or any other interview. The occupational therapist has, of course, to evaluate for himself the patient's status, emotions and thinking, but the OT does this always with particular reference to himself as he will be working with the patient, and within his frame of reference which is occupational therapy. Particular emphasis is placed in this interview on the patient's feelings about work and play, about the skills he has acquired and the skills he wishes to acquire, about work roles he has sought, roles he has successfully discharged and roles which have been the object of his ambitions. Once again it must be stated that this interviewing is done under the close supervision of the resident psychiatrist. If the occupational therapist elicits information which cannot be integrated into a rational picture or if anything is missing in the information, he again consults with the psychiatrist.

The actual work in the occupational therapy department is divided into two very separate endeavors: one diagnostic and the other, therapeutic. It goes without saying that these two endeavors frequently overlap, often go on both at the same time; but in the thinking of the therapeutic team, they must be kept separate.

Since beginning this work, we have often been greatly surprised at the contributions to dynamic diagnosis which can be made by a sensitive occupational therapist, observing the patient in the working situation, and the products of his work. It has been our experience in terms of dynamics that occupational therapy techniques which are

1. Associate professor of psychiatry, University of Colorado School of Medicine; medical director, Colorado Psychopathic Hospital, Denver.
2. Assistant professor of psychiatry, University of Colorado School of Medicine; assistant medical director, Colorado Psychopathic Hospital, Denver.
3. Director of training, occupational therapy department, Colorado Psychopathic Hospital, Denver.

unstructured are most useful in helping us to an understanding of the patient's emotions, conflicts and defenses. Sometimes, however, even techniques which are relatively well defined are useful in this area. For example, a teen-age boy with a severe behavior disorder was given the task of making a wooden bridge for a violin. He attempted this task five different times and never succeeded in completing an acceptable one. Still, during his work, he evidenced with the utmost nicety his usual emotional patterns including inability to tolerate frustrations, anger at direction by authority, grandiose evaluation of his ability and at last, the very definite narcissistic satisfaction he derived from continually placing himself in an inevitable self-defeating situation.

While no attempt is being made, at this time, to discuss the diagnostic work in detail, we would like to mention one other matter. Many of our patients are in considerable conflict over their sexual roles. These conflicts can sometimes be very minutely delineated by observing the patient's emotional reactions to kinds of occupations which are usually associated with one sex or the other. We have seen, for example, the case of a young woman with strong latent homosexuality who alternated between feminine kinds of work, particularly knitting and crocheting, and a more masculine kind of work, carpentry. It was observed that she did not derive much pleasure from the feminine work. She was impatient with it, did not keep at it long, complained continually about its difficulty and made many mistakes. While working on some wooden objects, she first of all explained very carefully that these objects were intended to decorate a house and, therefore, were the responsibility of a woman. Having made this announcement, she would then work, with very obvious pleasure, for long periods without complaint or mistake.

It has been our objective to design the occupational therapy so that it fits in with the therapy being conducted by other members of the team; we did not wish simply to keep the patients busy. The greatest difficulty in this has been to arrive at occupational therapy objectives which are first realistic, and, second, acceptable to the patient and to the therapist. All too often, the psychiatrist or other members of his team wish to state for occupational therapy, objectives which are too general ("improve socialization"), too difficult ("reassure patient about her ability to discharge the duties of a mother"), or inadequate therapeutically ("patient is going to State Hospital, try to keep his mind off this").

The therapists' objectives have to be limited but at the same time they have to be stated and kept clearly in mind to avoid the difficulty of working aimlessly. They have to be continually

discussed and re-evaluated. With these things in mind there can be no doubt that well-defined contributions can be made by the occupational therapist to the total psychotherapeutic program.

For example, a woman was admitted to the hospital with deep depression. The wife of a farmer, her family had suffered extreme economic hardships and she had been called upon to make heroic efforts to meet the hardships. She had run a house, cared for three children, worked in the fields and held an outside job as a book-keeper. Although she had attempted very faithfully to do all these things, she was extremely angry, consciously and unconsciously, because of the demands made upon her. She, therefore, volunteered for additional jobs in the attempt to handle her depression by self-punishment. When she first came into the occupational therapy department, she volunteered to do all of the unpleasant and repetitive jobs she could find. She wanted to wash dishes after coffee or she had to help clean up the shop and when finally she could be moved to other jobs, she attempted always to find jobs which first of all contributed to the public good and, second, were difficult. It was possible to encourage this woman to slowly undertake jobs of a different nature, first of all feminine and, second, intended to decorate herself, such as embroidering a pretty dress. This, of course, was a move against her depressive defenses. It first of all stimulated the discussion of these defenses with her psychiatrist and, second, offered to her an emotional pattern which was more practical than the one which she had been using.

To sum up, a new occupational therapy plan is being used at Colorado Psychopathic Hospital involving meaningful participation by an occupational therapist in the total therapeutic team, careful communication among members of the team, occupational therapy intake interview and work in the occupational therapy department carefully designed to contribute to diagnosis and total treatment.

See
You
in
Cleveland
October 21 to 25

NATIONALLY SPEAKING

On an Army troop transport which sailed from an East Coast port in the early months of 1945, one physical therapist and several hundred officers and men were assigned as replacement personnel to the European theater of war. The lone (lucky?) PT recently told me this story of her experience.

On the first night at sea, while having dinner at the Captain's table, our friend ventured the information that she was a physical therapist and, if the need arose, she'd be glad to assist with any duties for which she might be qualified. Volunteering in this fashion primarily from a desire to relieve the boredom of several days with nothing to do, she little realized what she was getting in for: later that same evening, as she was playing bridge with a congenial group, there came a summons from the ship's doctor to report immediately and assist at an emergency appendectomy.

The drama of the ensuing scene began with the "scrubbing" which, although familiar to all of us from movies, TV and even first-hand witnessing, became a wholly different matter in the first person singular. As each specific technique had to be demonstrated, and some even performed for her, the doctor gradually realized that he was not relying on a trained surgical nurse and the PT realized the wisdom of the old Army saying, "Never volunteer for anything." At last, made adequately "sterile," she took her station at the instrument tray by the operating table, hoping she might be of some help in handing the surgeon various items as he needed them. From her PT school experience in dissection, she did know how to change a scalpel blade, but she was at a loss to know what to offer when he called for an "Alice" and various other surgical instruments by names she had never heard. The sutures, all methodically laid out by size and in the order in which they would be required, became hopelessly scrambled when her unskilled hands tried to retrieve the desired ones from their fluid bath. Asked to thread a needle for the final sewing job, she estimated the length of the incision and prepared what probably would have been adequate for suturing several appendectomy scars—she said she can still see the doctor's right arm stretched to full length as he laboriously drew about a yard of thread through after each stitch.

There was no sleep for the PT that night and the next morning, before breakfast, she called on the victim in sick bay. The concern of this officer for the routine convalescence of the pri-

vate, so obviously demonstrated by her frequent visits during the entire voyage, must have seemed strange, if flattering, to the patient, but we can perhaps understand her feelings. And we can also appreciate the fact that she was only slightly less awkward and of little more help when, incredibly, she was called upon to assist at another emergency operation on the same trip.

This story does not have the excitement or tension of other more glamorous incidents that we have all heard—for example, the pharmacist's mate who performed surgery in a submarine in enemy waters, or even the qualified physicians who operated under emergency conditions on heavy seas, during attack, and in other heroic circumstances. But it does have a message for all of us and it lends greater meaning to a report presented at the recent mid-year meetings of the AOTA's education committees.

One section of this report by Lt. Colonel Myra McDaniel, chief of the Occupational Therapy Section, Army Medical Specialist Corps, was related to the potential role of the dietitians, the occupational and physical therapists in the care of mass casualties and included an outline of "Suggestions for Preparation of the Army Medical Specialist Corps Officer to Attain Proficiency in Emergency Medical Care." Copies of this outline were distributed to the directors of occupational therapy schools and student affiliation centers present at this meeting. The applicability and practical value of this material are believed sufficiently important to merit publishing the following brief summary of its contents for the information and consideration of all occupational therapists.

BASIC ASSUMPTIONS

1. *Training in disaster care is essential.* As noted by Colonel Harriet S. Lee, Chief of the Army Medical Specialist Corps, in an address to the Association of Military Surgeons, November, 1955: "I should like to preface my remarks on the role of these two groups (OT's and PT's) in the care of mass casualties by saying that in any realistic planning for an emergency where the survival of thousands of casualties will be at stake, one must proceed on the generally acknowledged premise that the normal functions of para-medical personnel will, of necessity, be upgraded . . . The point I should like to emphasize . . . is the immediate urgency for orientation to, and practical training in, the expanded responsibilities which will inevitably befall the members of our professions in a disaster situation . . ."

2. *Such training can be accomplished in Army hospitals.* At the Chief Nurses' Conference held in the office of The Surgeon General in April of this year, it was noted that "as it is the doctor's responsibility to recruit and train before the fact, those who could help in an emergency situation, so it is the nurse's obligation to do likewise." Such recruits to aid the Army nurse

are certain to include occupational and physical therapists.

3. *OT's and PT's need special training for such roles* because they do not routinely work with acutely ill patients. Although the types of procedures relevant to this subject are not normally considered essential to the function of either physical or occupational therapists, it is essential to their preparation as part of the medical team for a disaster situation.

4. *Practical experience in applicable techniques must supplement orientation, observation and lectures.* On-the-job training in emergency, operating, recovery, and cast rooms, on wards and in out-patient clinics is vital to gaining knowledge and skill in the specific care and treatment procedures that would have to be utilized.

GENERAL TRAINING NEEDS

Hemorrhage and shock—recognition of types; methods of control; replacement of body fluids

Burns—physiological effects and emergency treatment of

Unconsciousness and artificial respiration—observation of skill in three methods; methods of opening air passages

Wounds—observation, with explanation by doctor or nurse, of maximum possible number of types; application of temporary dressings and bandages

Fractures and dislocations—fundamental principles of splinting and casting in relation to optimum positioning; observation of emergency management of

SPECIFIC TRAINING NEEDS

Reading and recording temperature, pulse, respiration and blood pressure

Minor instrument identification

Initial and ward records—information essential to tagging casualties

Aseptic techniques

Pre- and post-partum care

In increasing numbers of Army hospitals, nurses and Army Medical Specialist Corps personnel are cooperating to develop realistic training programs consonant with the foregoing outline. Occasionally, OT's and PT's are first taking Red Cross courses as a basis for more specific training by Army nurses. One Army hospital has recently completed a 70-hour course covering lectures on patterns of panic in disaster situations, objective and subjective symptoms of patients, and considerable practical experience in reading and recording, blood pressure, temperature, pulse and respiration, in laboratory and sterile techniques, administering simple medications and oxygen treatment, caring for Ob and Gyn patients, giving hypos, duty in the recovery room, central materiel section and other hospital areas. This assistance from nurses has been reciprocated by the PT-OT group in the form of exchange orientation and practice periods in principles of posture, proper body alignment, crutch walking, self-help and other rehabilitation techniques.

Although the Army's increasing emphasis on the importance of planned preparation for emergency medical care has primary reference to defense situations, the military is acutely aware of

the fact that nuclear warfare is only one of the potential causes of situations that could involve the handling of mass casualties. Admittedly, such would be the most striking example and would call forth the ultimate potential from the greatest number of individuals, but one has only to have read an occasional newspaper this past spring to realize that elements such as tornadoes, floods, fires and travel accidents can produce problems in emergency care of the injured that are different only in numbers involved.

There are resources for civilian therapists to get the training being given to our military colleagues. Red Cross courses in basic nursing and the care of the sick and injured are offered in most communities and open to any who are interested; one of these is given in a series of seven two-hour sessions devoted to basic nursing skills and their adaptation to emergency situations. In addition, pamphlets on various aspects of emergency care of the sick and injured are available through local Red Cross chapters. Civil Defense, the United States Public Health Service and the American Red Cross are agreed that these basic courses are vital to prepare at least a nucleus of personnel who could be of help in a disaster situation. To the several specifics already mentioned as potential content of such courses, they add: admission procedures, feeding, use of suction machines, emergency delivery and care of the new-born, and care and identification of the dead.

None of us likes to even contemplate that we would ever find ourselves in a situation requiring our use of these and other techniques so foreign to our conventional role in medicine. Hopefully, few of us will. But, realistically, there is more than the possibility and, in such event, it is to be hoped that we would acquit ourselves with credit to our medical backgrounds, that we might prove assets rather than liabilities.

Through the Army Reserve Unit of which I am an active member, I have had a five-day course in the management of mass casualties which included lectures, demonstration, films, seminars and field problems under simulated war conditions. I am currently enrolled in Red Cross courses in care of the sick and injured and first aid, the latter including artificial respiration techniques. This fall, I hope to interest our local occupational therapy association in a group effort in similar courses.

What can YOU do? What WILL you do?
Will WE be ready if the need should arise?

WILMA L. WEST, O.T.R.
OT Consultant to the
Army Surgeon General

From the Educational Secretary

It is with pleasure that the education office announces the names of those examinees who successfully completed the March 1, 1957, registration examination.

Abbott, Kendal A.	Field, Mary F.	Fiebig, Connie T.	Krueger, Marilyn V.
Adams, Margaret W.	Fogler, Enid F.	Kuszmaul, C. Eugene	Roberts, Mona M.
Ames, Zoe J.	Foley, Joan	LaDow, Sharon D.	Roorda, Joyce E.
Anderson, Elizabeth	Forgie, Norma J. C.	Lamb, Denise C.	Rosamond, Suzanne
Armstrong, Joyce B.	Foskett, Rosamund G.	Larson, Kathryn A.	Rothman, Barbara
Astleford, Ollie J.	Fuller, Dorothy	Laudenbach, Jeanrose N.	Royal, Jean W.
Aton, Phyllis V.	Fung, Helen	Lauer, Charlotte H.	Rudeen, Dorothy M.
Bagin, Elaine P.	Gall, Ethel	Layton, Ruth M.	Salls, Elaine M.
Bailey, Marlene-Marie P.	Garofalo, Elizabeth A.	Lefkowsky, Sharon D.	Sauer, Helen F.
Baker, Patricia R.	Gear, Janet S.	Levinson, Sara	Schippert, Marjorie B.
Banik, Alice M.	German, Joan	Levy, Rosalind	Schmidt, Jocelyn A.
Becker, Marion C.	Gietzen, Dorothy	Limbach, Joanne E.	Schroepfer, Mary C.
Beckman, Gloria P.	Girton, Barbara J.	Linton, Margaret L.	Scott, Nancy L.
Benak, Dorothy Z.	Gordon, Virginia L.	Ljostad, Vivi S.	Scott, Richard
Bertz, Connie	Gray, Patricia L.	Loucks, Judith E.	Shelton, Rachel M.
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Bierlein, Carol	Griffin, Martha A.	Ludtke, Walter O.	Shoemaker, Linda C.
Billow, Carol I.	Gualdoni, Rosine M.	Lugo, Jose S.	Sister Mary Charles
Blye, Rosalie	Haag, Marilyn	McCarthy, Joanne	Wolking
Breines, Estelle B.	Haas, Constance M.	McKerrow, Gayle L.*	Sister Mary Christopher
Brenner, Elaine M.	Haas, Mary R.	McLeod, C. Jeanne	Esler
Brophil, Gladys R.	Hackaylo, Alberta M.	Madigan, M. Jeanne	Sister Mary Estelle Panger
Brooks, Barbara J.	Halverson, JoAnn C.	Mahoney, John R.	Smarak, Phyllis
Brookshaw, Bernice	Harrington, Mary	Maloney, Shirley O.	Smith, Alice P.
Bryan, Mary K.	Harris Sr., Alvin J.	Manning, Maureen M.	Smith, Jane M.
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Campbell, Laurine E.	Hill, Rheta A.	Miller, Ruth B.	Stotts, Maurice
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Cotton, Anita R.	Hudgens, K. B.	Nakamura, Janet C.	Torrance, Lillian B.
Craver, Pauline N.	Huffstetter, Reuben C.	Naur, Ardis	Torregrosa, Luis F.
Crockett, Peggy J. K.	Huntley, Lou	Neri, JoAnn T.	Toshiyuki, Barbara
Cunningham, Mary Jo K.	Huppert, Joyce P.	Nichols, Ruth N.	Tresser, Surry S.
Cunningham, Nancy A.	Jarvis, Jeanne A.	Nouguier, Mary A.	Urbach, Dorothy
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Day, Nancy L.	Jones, Helen B.	Parry, Sarah	Wanchik, Joseph
de Gara, Renata	Jones, Nancy L.	Phillips, Winifred E.	Ward, O. Jeanene
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Erselius, Marilyn A.	King, Phyllis	Rabent, Eugene F.	Westen, Miriam D.
Faberman, Karen L.	King, Virginia B.	Raje, Pauline C.	Whiteford, John H.
Fair, Sue	Koch, Barbara A.	Rayhorn, Carol B.	Williams, Carol Y.
Feldman, Judith E.	Kolter, Cherry L.	Remynse, Eleanore	Willis, Larrie J.
Fernandez, James	Krill, Patricia	Rickett, Anne	Wyatt, Sonya R.
		Ritchie, Jean L.	Wyrick, Joane M.
		Rivera-Mendez, Mario E.	Zucherman, Davina C.

*Completed with honors.

Mary Frances Heermans, O.T.R.
Educational Secretary.

AJOT XI, 4, 1957, Part I

PEOPLE YOU SHOULD KNOW



GEORGE D. FRYE, O.T.R.

A Biographical Sketch

by

JACK DACK, O.T.R.

The membership of the American Occupational Therapy Association congratulates Mr. George D. Frye on his recent appointment to chief occupational therapist of the physical medicine rehabilitation service, Veterans Administration, Central Office, Washington, D. C.

Mr. Frye is a former Iowan. He is a graduate of the Albia High School where he started his athletic career. In 1939 he played center on the University of Iowa's famous Iron Man football team under the coaching of Dr. Eddie Anderson. He was a Varsity letterman for three years.

In 1942 he enlisted in the U. S. Navy as an aviation cadet, and in 1943 was commissioned in the U. S. Marine Corps as a Naval aviator. He was assigned to combat duty in the South Pacific and was awarded the navy air medal commendation for meritorious service.

After being discharged from the United States Marine Corps in 1946 he returned to the State University of Iowa and graduate in 1946 with a B.S. degree in physical education. He then enrolled in the first occupational therapy class

at the University of Iowa under the direction of Miss Marguerite McDonald, Director of the School of Occupational Therapy. He has the distinction of being the first student to complete this training at the University of Iowa, and graduated in 1948.

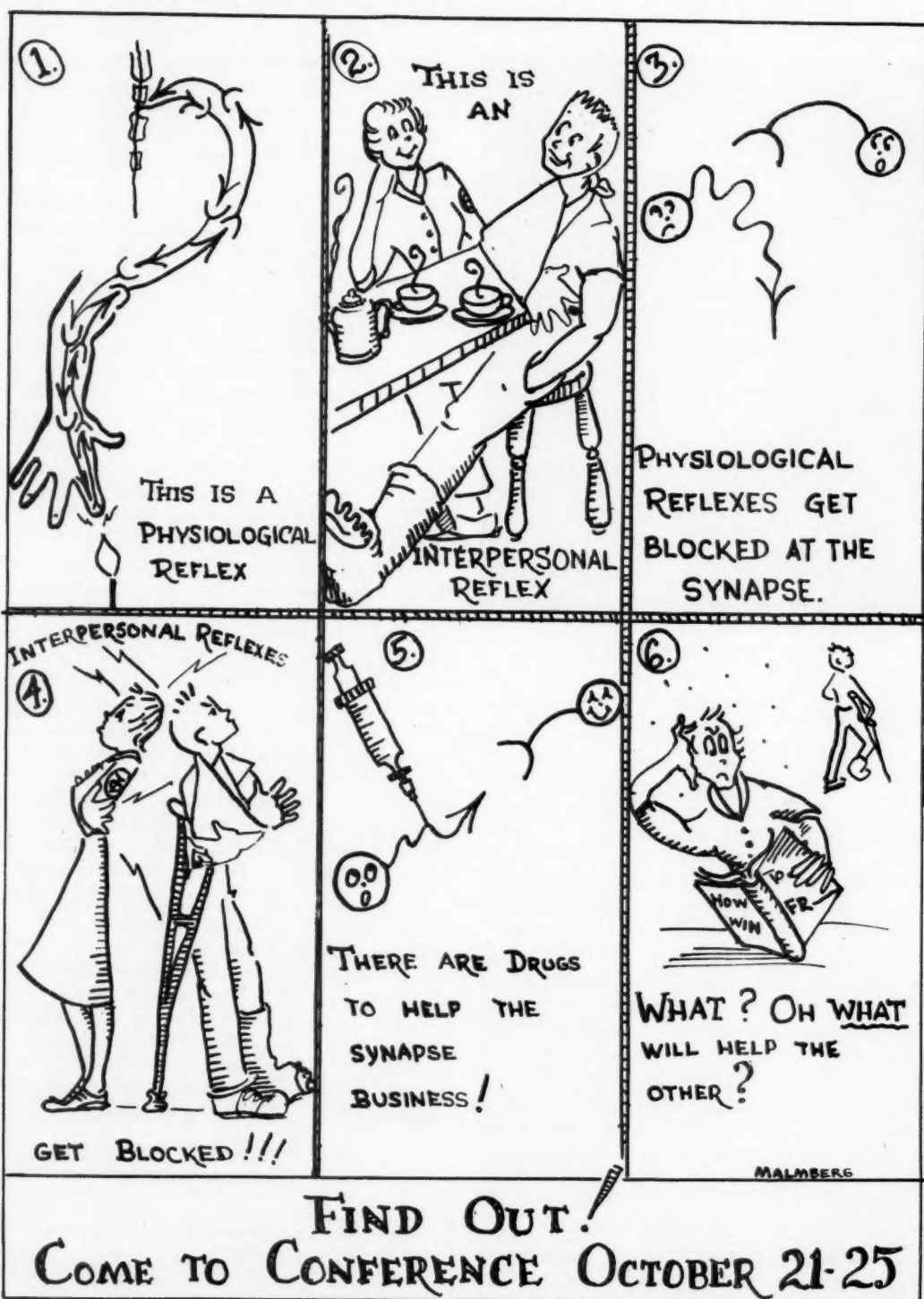
Pending full professional recognition of the occupational therapy school, he accepted a sub-professional position at the VA Hospital, at Knoxville, Iowa. Later, when the school was approved by the American Medical Association he was promoted to staff therapist and later to chief occupational therapist, physical medicine rehabilitation service, and served in that capacity until his recent appointment to Central Office.

Mr. Frye's professional leadership and administrative ability placed him on many committees within the Knoxville hospital, and he was elected chairman of the junior management committee. He has served as president and vice-president of the Iowa Occupational Therapy Association.

The Fries maintained their home in Albia, thirty miles from Knoxville. They now reside at Silver Spring, Md. Mr. Frye is married and the father of three children, George Jr., 9, Beth, 3, Bonnie, 1. Mrs. Frye is the former Margaret Wilson of Albia. In October when they moved from Albia, she was presented a "Community Service Award" by the Albia newspapers in "recognition of outstanding achievement for her interest and devotion to the children of the community as exemplified by her work as president of the Monroe County Association for Retarded Children, King Special School which she founded, and other work for children in the community."

Many occupational therapists and occupational therapy aides have had the privilege of knowing and working with Mr. Frye, and they are happy that he has received this new appointment. All of us here at the VA Hospital at Knoxville congratulate him and thank him for the patience, understanding, and guidance he administered in his capacity. He was instrumental in my leaving the aide category to obtain my professional education at the State University of Iowa.

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IT'S NEW! IT'S DIFFERENT

The 1957 Institute-Conference

October 21-25

Carter Hotel, Cleveland, Ohio

The 1957 institute-conference will be a milestone in our professional development, marking the association's 40th year of service to occupational therapy and occupational therapists.

Suggestions from the members and the recommendations of the series of OVR, NIMH and AOTA institutes held during the past three years have been used in building the week's program content around a pattern of an institute-workshop.

Before the conference begins, the graduate study committee and the council on education will meet the afternoon and evening, respectively, of Thursday, October 17; Friday, October 18, is the date for the education committee meetings and Saturday, October 19, the House of Delegates will convene. The Board of Management will meet Sunday, October 20.

Here are a few highlights of the week to help you visualize this new and different conference:

Sunday, October 20, will be a day devoted to leadership training for the 80 group leaders now being suggested by state associations. These leaders will be fortunate since they will work with such experts as Dr. Jack Gibb of the Fels Group Dynamic Center, University of Delaware, and our consultants for the conference, Mr. Dick Beckhard, and Miss Edith Whitfield of Conference Counselors, New York City.

Registration opens at 8:30 A.M. Monday, October 21. Time has been planned for the pre-conference group to register prior to this date. An informal coffee hour follows registration Monday morning. This will give you a chance to greet old friends, meet new ones, as well as talk with the officers and board members of our association, the professional staff of AOTA, state association presidents and delegates.

A provocative discussion by an occupational therapist on the role of occupational therapy will open the first general session at 11:00 A.M. Monday, October 21. At noon you may continue visits with friends by enjoying the first of a week of two-hour lunch periods.

Everyone has expressed a need for time to exchange ideas and learn new developments in the area of their particular interest. To meet this very real need a "Treatment Techniques Fair" has been planned from 2:00-5:00 on Monday afternoon. "Midway" style you will see dynamic demonstrations of a variety of treatment tech-

niques based on psychological and physical problems with consideration given to age groupings. The Fair will be the first of many opportunities during the week to raise questions or discuss problems with individuals or small groups, who have similar concerns with the work they are doing.

What do multiple relationships mean to the occupational therapist, i.e., relationships with other members of the staff team, other OTR's, patient groups, and members of patients' families? Dr. Jack Gibb of the University of Delaware will raise questions to keynote a discussion on the multiple relationships of the occupational therapist on Tuesday, October 22. Therapists will then meet in groups of ten and spend the rest of the day discussing the things that go on in a group setting. A closing session will summarize discussions of the day.

Come primed for action. Come prepared to share with others your ideas, your feelings, your knowledge, your skills, your concepts of the roles of the occupational therapist in our 40th year of service.

* * *

Details About the Conference Week to Help You Plan Ahead

1. There will be pre-registration for the institute-conference. This is to be mailed to you with the August Newsletter and will include a pre-resignation card, with request for an advance \$5.00 fee, a hotel reservation card, and the preliminary program.

To help with planning, it is important that you indicate on the pre-registration card the number of days you plan to attend and attach the \$5.00 advance fee. We recognize that there are emergencies which may necessitate change of plans and have arranged to meet these situations. However, it is vital in terms of hotel space and developing good small discussion groups that you return your pre-registration material promptly.

2. About the Carter Hotel: in addition to single rooms, there are 325 double bedrooms and 90 twin bedrooms. The hotel will add a studio bed in the double bedrooms.

3. Travel information to Cleveland: for those who wish specific information, please write to Dick Wittig, 4009 Wetzell Avenue, Cleveland 9, Ohio.

4. Fees for the conference will be similar to previous years with provisions made for daily rates. The total week's fee will be \$13.00, \$5.00 of which is advance fee to accompany your pre-registration materials. You will pay the remaining conference fees upon your arrival in Cleveland.

* * *

Dr. Jerome Frank of the Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, and the entire conference group, will provide some interesting provocative questions regarding the "interpersonal reflex" of the occupational therapist. This session will be held on Wednesday, October 23.

On Thursday, October 24, you will have a chance to talk over methods of evaluation and the problems you have in reporting. In other words, what are you doing or should you be doing in "evaluating the patient." Key discussion points will include the scope and responsibility of the occupational therapist's contribution to evaluation.

To set the stage for small group discussions, an occupational therapist (Captain Lottie V. Blanton, AMSC) and a psychologist (Richard T. Sidwell, M.A., clinical psychologist) will define and explore the term evaluation. They will be joined in this exploration by a panel representing medicine, social service, nursing, placement counseling, and the patient, who will give their comments as to what each seeks from the occupational therapist's evaluation.

With your help, the closing session of the conference week on Friday morning, October 25, will build a stimulating point of departure around the week's conclusions and recommendation of the group. The role of occupational therapy will be reassessed and related to the current trend—where we are and where we propose to go—by President Ruth Robinson, Lt. Col., AMSC (OT). Chairmen of the AOTA standing committees will be on the platform to share with President Robinson this assessment of the association's activities.

Evening activities of the week will include the official opening of exhibits, school supper, business meeting, Eleanor Clark Slagle lectureship, Ships party, and the banquet. For those who will still be in Cleveland Friday afternoon, tours of several occupational therapy departments have been planned.

It will be a week for you who come to the 1957 institute-conference in Cleveland to do more than sit and listen, and do more than absorb what others have come prepared to tell you. Each

one attending will be given many opportunities to *participate*, to *contribute* to the total knowledge of the group, and to receive information, ideas, awareness of techniques and skills, inspiration and stimulation.

Psychological Phenomena . . .

(Continued from page 187)

Early hemiplegics are best taught highly specific tasks because they can maintain attention to a highly specific stimulus more easily than with a diffuse stimulus. The environment must have a low stimulus level because of the extremely low stimulus threshold of hemiplegics. The reduction of as much stimulation as possible within the teaching situation will help the patient to be able to maintain his attention on the task at hand more readily and decrease attentional dissipation.

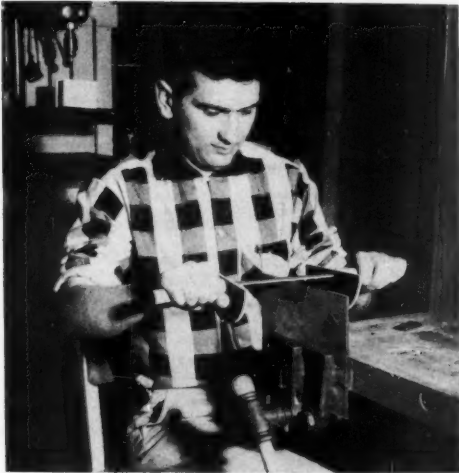
The elimination of this phenomenon lies squarely within the realm of the occupational therapist. It is much more easily eliminated with adults, who as a result of a C.V.A. have lost the ability, than it is to eliminate it with children who have never had the ability. Those who suffer central nervous system insults as children find it very difficult and in many instances impossible to learn to pay attention to those stimuli which are relevant and to ignore those stimuli in the environment which are irrelevant. This area is of great importance to the field of occupational therapy. Its challenges to the occupational therapist are many but its real solution lies within the field of occupational therapy.

An advanced course in physical rehabilitation will be offered by the Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center in conjunction with the New York University School of Education. The course carries four points of either undergraduate or graduate credit and will be given from November 18 to December 13, 1957, February 3 to 28, 1958, or April 28 to May 23, 1958.

The course will cover severe disabilities and their specific problems and programs of functional activities. Opportunities for clinical experience will be given under supervision.

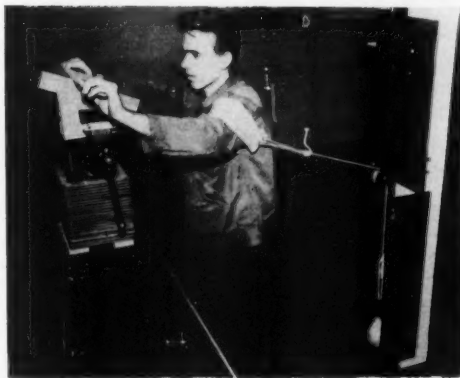
Tuition will be \$120.00 with a \$7.00 registration fee. For further information contact Mrs. Edith Buchwald Lawton at the Institute.

Picture Page*



Double handled file for bilateral filing. When coordination is poor, it may be desirable to use the guards which eliminate danger of the hands being pulled onto the file or against the material being filed. These guards may be made from masonite, quarter inch plywood or plastic.

Resisted shoulder flexion is obtained while sanding or filing by means of this leather cuff which fits over the upper arm. A rope from the cuff through a pulley, holds the amount of weight desired. The vise, according to the degree of flexion desired, can be raised or lowered by adding or removing plywood boards. The wooden extensions on the jaws of the vise hold the material securely at an angle. This angle promotes even greater shoulder flexion.



A sand block for patients with a hemiplegia. The involved hand—and if necessary the thumb—is strapped to the sand block while the uninvolved side assumes the same position next to it. The friction of sanding is great enough to make it necessary for the patient to concentrate on pushing down and out with the uninvolved side as well as with the paralyzed one. This strong concentration on elbow, wrist and finger extension in both hands may elicit the desired response in the paralyzed one, as overflow often produces bilateral movement.



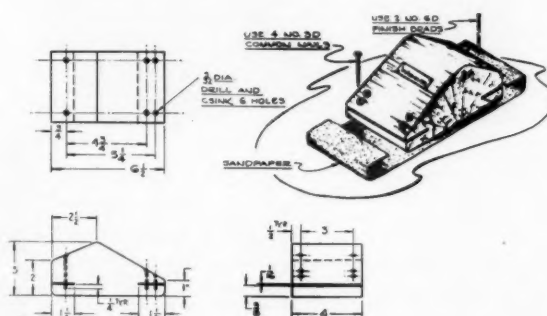
*Pictures from Fitzsimons Army Hospital, Denver, Colorado.

Picture Page



Sand Block

This sandblock was designed to facilitate fastening sandpaper to the block. It has proved most effective. It will be noted that two sets of nail holes have been drilled in one end of the block. This was done to accommodate the two basic sizes of sandpaper.

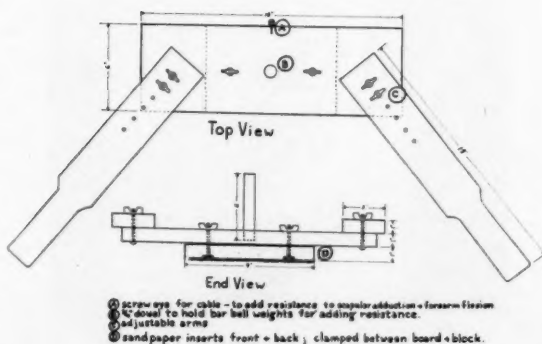


A Working Drawing of the Sandblock



Adapted Sand Block

An adapted sand block for adduction of the scapula which is used primarily for polio patients for increasing muscle power of the middle trapezius and rhomboids, major and minor. Patient positioned with the working surface at chest height, arms abducted ninety degrees.



A Working Drawing of the Adapted Sandblock

Law . . .

(Continued from page 183)

it is determined that payment has not been made, there is no authority vested in hospital authorities or others in similar circumstances to continue to detain a person. There are other means of legal redress for the collection of bills.¹⁴

Besides being responsible for attending patients, we should also realize our responsibility concerning the "care of other people's property"—clothing, money, et cetera. An occupational therapist's liability for the neglect, loss or injury of a patient's property is not predicated upon his professional duty, but upon his personal duty. This liability applies to all, no matter what trade, profession or business. We must "exercise due care" in the handling of a patient's property, to safeguard it from loss or damage due to negligence.

Finally, we must consider "contract suits." A contract has been defined as a promise, or set of promises, the performance of which the law recognizes as a duty; and when that duty is not performed, the law provides a remedy.¹⁵ The remedy for breach of contract enables people who suffer from broken contracts to gain recompense of some sort.¹⁶

Every contract to be enforceable by law must contain: the real consent of the parties; a valid consideration (something of value); a lawful object; competent parties; the form required by law.

Contracts may be written or oral; expressed or implied. Oral contracts are the most common and many employment contracts fall into this category. You as well as your employer may be liable if terms of the employment contract are not fulfilled.

For example. You agree to work as an occupational therapist (9-5, Monday through Friday) for institution X for \$250 a month during 1957. In May, institution Y offers you employment with the same hours at \$350 a month, starting in June. Unless you have reserved the right to terminate the contract earlier, you must fulfill your contract. If not, institution X can sue. The fact that most employers do not sue employees who breach contracts does not necessarily mean they do not have a cause of action.

Remember that the laws which regulate these things have come out of good moral and historical backgrounds. An increased understanding and awareness of the law as it relates to you will add to your security and effectiveness as a person and as an occupational therapist.

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Art Therapy . . .

(Continued from page 185)

apy situation.) All of the drawings were dated, and any comments by the patient were written on the back. The drawings were filed in individual folders.

EVALUATION

Two clinical psychologists rated the pictures. The psychologists did not know the patients, nor did they know the name of the patient doing the pictures since all of the pictures were given code numbers. Eight aspects of the art productions were evaluated; if any change in an element was seen, it was rated significant. These are the elements which were evaluated:

1. Rigidity: the tendency to use narrow limits, precise techniques.
2. Harmony: the smooth integration of the various elements comprising the drawing.
3. Reality: the degree to which the drawing conforms to the consensual perceptions of the external world.
4. Integration: similar to harmony, but without the aesthetic value. This is a more intellectual process, and demonstrates intactness.

5. Expression: the ability to represent, overtly, movement and feelings.

6. Control: the ability of the patient to restrain his expression so that it remains within the limits of the media.

7. Bizarre: the presence of any material removed from reality, and qualitatively strange enough to suggest more advanced personality deterioration.

8. Perseveration: the tendency to produce the same picture, or to repeat portions of a picture.

There were a few patients who did not produce enough material so that a rating was possible. In cases where a patient's productions were meager at the beginning of the experiment, and meager at the conclusion, it could be said that little change had taken place. The results of the evaluation showed very little difference between the drug and control groups. Behaviorally, there was little difference observed between the two groups, or between this whole group of chronic patients, and any other group of chronic patients in the hospital. The patients "warmed up" to the occupational therapy situation, learned the routine, and slowly started rudimentary socialization as time went on and they became familiar with the people around them.

CONCLUSION

It can be said that, essentially, there was little observable behavior modification as a result of Thorazine therapy.

* * * *

The above study was derived from the experiment using Thorazine with chronic catatonic schizophrenia resulting in a paper, "A Report on the Limitations of Thorazine as a Short Term Adjunct in Chronic Catatonic Schizophrenia," by J. Dworetzky, M.D., senior psychiatrist, Brooklyn State Hospital; M. B. Lipton, Ph.D., in charge of psychological services, Norristown State Hospital, Pennsylvania; Paul I. Tarantola, M.D., supervising psychiatrist, Brooklyn State Hospital; and H. D. Plotnick, senior occupational therapist, Manhattan State Hospital. This original study was a joint undertaking of the departments of psychiatry, psychology and occupational therapy at Brooklyn State Hospital, Brooklyn, New York. The authors are indebted to Dr. Nathan Beckenstein, director, and Miss Edith Weingarten, supervisor of occupational therapy, without whose assistance the study would not have been possible.

This manuscript was written as a separate study based on material gathered during the above experiment. We should like to thank Mr. John Colbert, formerly of the psychology staff at Brooklyn State Hospital for his assistance in the evaluation of the patients' drawings.

REPRINTS

Reprints are convenient for teaching files in hospitals. If you would like a few copies of articles appearing in this issue, your order will be honored if enough requests from others are received to total the minimum order of 50 for an article. Place your orders before the 25th of the month of publication.

Letters to the Editor

To the Editor:

The cerebral palsied patients are known to be one of the most complex treatment problems. The therapist equipped with a knowledge of basic theory and techniques of treatment must be imaginative and observant in his analysis of the patient if he is to be successful in his treatment. These factors demand of those in the field a consistent re-evaluation to simplify procedures, techniques, records and, indeed, on occasion their own thinking processes.

Antje Price's paper "The Measurement of Writing Skill in Physically Handicapped Children" is a commendable effort to pull down to a tangible level the many elements involved in evaluating a complex skill. It is regrettable that the author has elected to present such a mass of supporting data. She has, we feel, negated her own introductory expression of the need for being "realistic" and "minimizing effort." Her conclusions do not warrant ten pages of print when those who daily practice in the field lose interest on the third page and put the article aside.

The study itself is quite another matter. Any detailed thinking is healthy yet does not assume real value until it is cleared of non-essentials. We do not agree with the author's conclusions. Her specific comment on individual cases does not prove the validity of her test but reinforces the previously known fact that many elements determine the feasibility of teaching writing.

We encourage research and specific study of clinical problems and would anticipate that findings would not always meet unanimous agreement. We are pleased that the author undertook this problem but feel that we should take caution from this type of study. Let us never deny that skill in the trained and experienced therapist which enables him to use judgment in evaluating patient performance. Let us not get so involved in establishing formal tests that we fear to use the very thing that professional education should equip us to do—rely on judgment, on skill of analysis of physical ability, on the human element of both therapist and patient and adapt the use of tests only when they are practical and of positive value in conservation of treatment time.

Ruth W. Brunyate, O.T.R.

To the Editor:

In reading Mrs. Sonia T. Vellani's article, "The Role of the Initial Interview in Integrating the Rehabilitation Services in a Neuropsychiatric Hospital" in the March-April, 1957, issue of *AJOT*, I was pleased to find that some experimental work on groups and groupings is being carried on by occupational therapists. It was also good to read that some occupational therapists are taking the initiative in developing standardizations for their programs, and in determining their own attitudes for establishing their relationships with the patients. Another excellent feature is that the patients are interviewed and treated as individuals and personalities, in contrast to the frequently used concept of "diagnostic entities."

Since my own experience is primarily with short term, intensive treatment patients, of mixed sexes, in a small hospital, my questions may be due to differences arising from long term therapy, primarily with men patients in a large hospital. Mrs. Vellani states that each patient on the admission unit is interviewed by the occupational therapist. Therefore I infer that each patient is expected to be placed in an occupational therapy clinic. I cannot comprehend the idea that all patients can benefit from

occupational therapy, anymore than I can comprehend that all patients can benefit from any other treatment procedure, such as intensive psychotherapy, electroconvulsive therapy, insulin therapy, etc.

It would appear that the interview with the patient is primarily a verbal procedure. Since occupational therapy is primarily a performance procedure, I question this singular interviewing approach for the non-verbal patient or for those patients with gross discrepancies between their verbal levels and their performance levels of achievement.

In description, the interview subject material appears to deal primarily with external situations that well may be the integrated or "well" side of the patient, rather than his internal reactions which may be the core of his sickness. This is also inferred when it is said that the interview is reality oriented and is not concerned with the more psychodynamically oriented material. If this concept is carried out in the clinic the patient may be forced to "cover" his difficulties, rather than to "work through" his problems in the treatment situation. I am aware that many occupational therapists feel that their work cannot encroach on the work being done by the psychiatrist, but to be able to call oneself an occupational therapist specializing in psychiatry, and to work as an integral member of a psychiatric team, one cannot feel that psychodynamic concepts are not a vital part of occupational therapy.

I would be interested in learning more about the patients' reactions to groups. Does a homogeneous group provide as much motivation to the patients as mixed groups? Do good interpersonal relationships between patient and staff, and patient and other patients suffer from frequent regroupings? Are there pressures present within the patient regarding his "graduation" into another group? For example, does the patient with hospitalitis prefer to stay in one group rather than to indicate improvement by performing up to his capacity? Or does another patient control his symptoms in order to gain the approval of being transferred into another group, or out of the hospital?

I do not infer criticism of Mrs. Vellani's paper, but merely interject these questions in the hope that they will be answered in the other portion of their study.

(Mrs.) Marguerite McDonald Klein, O.T.R.
Director of Occupational Therapy,
Columbus Receiving Hospital,
Columbus, Ohio.

To the Editor:

Measurement in occupational therapy is vitally necessary to render scientific development of professional service more evident. Logically, valid and reliable measures of achievement should be established before measures of predictability are attempted. Yet, if practice is to be improved through improvement in preparation of practitioners, predictability ranks first in demand, and achievement second; the school must select students with demonstrable ability to succeed on clinical affiliation and in positions available. Such thoughts as these make publication of Miss Mary Booth's abstract of her thesis welcome in the March-April issue of AJOT this year.

At present, two measures of success in practice (or achievement) are accepted as valid and reliable (whether or not they are, to any significant degree). These are the AOTA registration examination percentile and the combined ratings on four or more clinical affiliation performances. Grades made in courses in occupational therapy count for recommendations to take the national examination, but they are not differentiated in any re-

port to the education office. "Grades are not everything!" Miss Booth must have countenanced this common protest of students to whom interests are of prime concern, and personality is of supreme importance (however variously defined). Her selection of an Interests Test and a Personality Inventory to correlate with the two measures of professional preparedness was, therefore, a happy one, and the results are new; they could hardly have been anticipated. Evidently sick children respond better to serious, sensitive therapists than to noisy, insensitive ones. Evidently the AOTA examination is worth studying for and not to be left to chance. These convictions, substantiated by Miss Booth's figures, deserve universal acceptance.

In all measurement, validity is the essential starting point. Unless the unit of measurement is of the very substance of what is being measured, all rankings, correlations, formula corrections, tables, graphs and inferences are about as likely to be off focus as in focus. Statisticians can be hired to do computations, for numerical relationships are the same independently of data. Five chairs are just as much five as five persons are five; only the chairs and the persons are different! That is why statistical theses, in themselves, are less beneficial to mankind than are creative services designed and developed for human welfare.

But measurement is important, and Miss Booth must be credited and praised for having measured what had not been measured before. And no occupational therapist is likely to excel her in measurement until the validity of occupational therapy itself has been comprehensively defined in terms of specific treatment. In all psychological testing today it is certainly preferable to build scales of behavioral responses in selected situations, rather than to work at scaling values arbitrarily assigned to traits. Every record of a demonstrably effective treatment is a valid source of content worth adding to until trends begin to show which can be traced to controlling factors. When sufficient valid data have been accumulated and analyzed, inferences can be expressed as working hypotheses. Such hypotheses must then be tested in controlled experiments that warrant evaluations of recorded achievements. With knowledge of treatment situations that regularly reverse undesirable symptoms or uproot even minor causes of ill health, the graduate student of occupational therapy should be able to identify treatment situations that can be defended in theory, set up and administered in practice, and tested for efficacy in clinical affiliation periods and on final examinations. Coefficients of correlation are high between like data; indices of reliability are high when what is truly important is directed in growth. Let those who follow Miss Booth to—and through—graduate schools of occupational therapy build valid scales from treatment records and refine them for predictability!

Sister Jeanne Marie, Ph.D., O.T.R.

To the Editor:

The studies by Miss Booth and Miss Englehart in the April issue of AJOT are indeed commendable efforts, providing time can be taken to decipher their meanings. The presentation appears to be particularly tedious, perhaps due to the emphasis on statistical citations. The investigations are certainly ambitious attempts at statistical analyses of the data and every effort appears to have been made to test all possible reliabilities. Unfortunately, the data itself is sometimes gathered from unreliable sources so that the meanings of the reliabilities quoted in the studies are somewhat vague. Even vaguer is the nature of the experimental designs employed. Sta-

tistics are, after all, only a tool, not an end-product, and it would seem worthwhile to spend more time discussing such things as the experimental designs, the hypotheses, the results and the conclusions, and less time presenting statistical details, except in table form. Miss Booth, herself, seems to have been a little dazed by the minutiae for she reports a median age of 21 in an age range of 21 to 41 years, quotes four reliabilities for five factors (STDCR), and then appears to apologize for a correlation coefficient of .92. After all of this she draws no real conclusions from her results and does not discuss her results. She does, at one point, jump to the hasty conclusion that since Phillips study is "corroborating evidence" of the relationship between "literary interest" on the Kuder and grades on the national registration examination, that it is possible "other correlations may have real significance."

I also wonder about the use of the STDCR and the Kuder, after admitting that they failed to differentiate the occupational therapy student from the general or college populations. Would it not have been advisable to utilize a test which did differentiate? I believe Caroline Goss Thompson, in the October, 1951, issue, found several significant differences in the occupational therapy student group from the general or college population.

Finally, although both ladies lightly dismiss intelligence as it is not predictive, I fail to see how it can reasonably be ignored in studies of this nature, particularly in a study using success in college courses as one of its criteria and having as one of its conclusions that on-the-job success can be predicted from success in certain courses.

I hope I have not sounded as harsh as I fear I have. Certainly investigations of this nature are necessary to show trends and pave roads through nearly virgin forests and both ladies have made ambitious moves in this direction. I only wish it were presented in such a manner that the rest of us could travel that road more easily.

Helen J. Christrup, O.T.R.

To the Editor:

The article in the March-April issue by Sonia T. Vellani, O.T.R., on "The Role of an Initial Interview in Integrating the Rehabilitation Services of a Neuropsychiatric Hospital" deserves some comment. A few interesting points are brought forth regarding the benefits that may result in the total treatment program for mentally ill patients if the occupational therapist has an opportunity to gather background data from the patients immediately after admission.

The most significant point which Mrs. Vellani mentions is that by having an early contact with patients the occupational therapist should be in a much better position to establish sound relationships when such patients are later prescribed occupational therapy. Also, she indicates the interviewing process permits an overview of the programs which is of direct help to the physicians when individual cases are reviewed and treatment plans effected. This situation confronts most of us working in larger hospitals where physicians and their time are limited. Her point here is well taken.

This article was acknowledged to be a report of an experiment in which four essential items were to have been investigated. Each of these were noted, but it was difficult to distinguish at what points they were brought forth and whether they were actually basic elements in the experiment. Many personnel in medical settings might question, as I did, the role of an interviewer being taken by an occupational therapist. The current

practice in most mental hospitals is to have the interviewing of patients done by physicians and/or social workers. One might second guess that perhaps Mrs. Vellani had, either by experience or education, a background in social service work.

The one very challenging thought provoked by this article is that occupational therapy—this means each occupational therapist and his colleagues—needs to develop considerably in the area of research. Our profession has made great strides in two basic components of our work, i.e., education and application. Research will complement these two. Unfortunately time is not on our side. We are woefully inert in this area and the time has come for occupational therapists to cease making many unqualified statements about what we think we can do.

Mrs. Vellani has taken up this challenge in a small part. She has attempted to point the way for psychiatric occupational therapists in one area of their work. She is to be commended for undertaking a very complex and undefined process.

Laurel V. Nelson, O.T.R.

To the Editor:

Dr. Lee Meyerson, in his recent article on our behavior in the clinical field, has revealed himself to be an astute observer of the occupational therapy arena. He accuses us of unreasonable behavior, of a too generalized approach to treatment, of seeing the same needs in every patient, and of blind devotion to the belief that every patient has a right to physical independence. Backgrounding these charges is Dr. Meyerson's attempt to erect the more reasonable criterion of a patient's right to individualized goals towards which his energies can be directed and through which he can attain fuller gratification. I, for one, am in general agreement with these charges and feel that there is much truth in what the author has said. In many instances of clinical behavior, I feel, we are guilty as charged.

Occupational therapists were pioneers in rehabilitation before it was popular to be in this field. Our techniques were learned on the left-in-the-beds, the sit-in-the-corners, the medically forgotten in the back wards. We have ranged in a trial and error fashion over a wide gamut of medical problems. Our thinking became, and probably still is, intuitive; our guiding principles were, and probably still are, rule-of-the-thumb.

There are certain advantages to our position that the allied groups with whom we work, do not always have. They do not always have the kinds of experiences that produce a similar depth of intuition. They do not always operate from the broad base of training and practice in physical and psychiatric disabilities that we do. Such advantages as we do have, I believe Dr. Meyerson is trying to point out, are in danger of becoming a source of weakness rather than strength for us. Our intuitive way of thinking is by its nature limited to the individual thinker, and our rule-of-thumb principles have little force in organizing and specifying our knowledge. It is conceivable that our behavior can be a threat to others in rehabilitation who are differently oriented. To those who are disciplined in orderly methods of thinking, and whose orientation to behavior is through learning and personality theory, we could easily create the impression of leaping headlong into the ever differentiating clinical situation brandishing the ancient weapons of yesteryears.

To some of us, Dr. Meyerson's cry of anguish is no less than our own. I number myself among those who believe our future respectability lies in the revision of

our basic professional curriculum. A mature curriculum that includes the needful disciplines coupled with past clinical activity may produce the discerning clinician, with whom Dr. Meyerson, and other members of the rehabilitation team may profitably share patient treatment.

We appreciate the fact that Dr. Meyerson cared enough to send the finest—his Hallmark greeting of concern for occupational therapy.

Mary Reilly, O.T.R.

To the Editor:

Rose Elliott is to be congratulated for her concise presentation of a most difficult subject, "Orthotics in Poliomyelitis," which appeared in the May-June issue. Many therapists and educators have long expressed a desire to see this information committed to paper and published.

One facet of this subject that might receive greater emphasis is the psychological aspects of applying the orthosis for long term or home use. I understand that the prosthetists have coined a phrase to express this in connection with patient acceptance of artificial limbs. They call it "hardware tolerance."

Too often the value of the orthosis is judged solely on whether the patient continues to use it at home. A recurring indication of this problem was detected in almost every article in the poliomyelitis issue. Miss Elliott stated, for example, that feeders supported in ball-bearing swivel arms, "In spite of their limitations are usually preferred when it is found that the need for feeders is permanent or of long duration." It could be pointed out that this type of apparatus is far more socially acceptable and less conspicuous than the standard kind requiring a thirty-six inch overhead bar and spring suspension. The experienced therapist may say that consideration of patient feelings is elementary and obvious. The question is, are the emotional aspects of a particular patient and his orthosis really ever obvious in the typical atmosphere of a busy medical ward.

An orthosis may be the culmination of innumerable man-hours of diagnosis, treatment, careful fabrication and sheer ingenuity by the entire medical team but what does it become when the therapist applies it to a patient. Some patients may see it only in terms of how it will look to family and friends, a few may regard it as a mechanical curiosity and most (regardless of the degree of their involvement) will look upon it as a poor substitute for their loss and hope to discard it as soon as possible. When an orthosis is taken home it may have to fit into an ethnic group whose philosophy is completely alien to that of the medical team. These devices may have to be accepted, cared for and applied by spouse, mother-in-law, neighbor, or even an older child.

It is not suggested here that the total responsibility for interpreting the orthosis to the patient and his family falls on the therapist—this lies with the physician, social worker, psychologist, etc. The occupational therapist should always be aware, however, that overlooking these emotional factors can preclude success in the long term application of an orthosis just as surely as overlooking an ankylosed elbow or tight shoulder adductors can preclude success. More important, over estimation of the "hardware tolerance" may not become apparent till after the patient is discharged.

It might be pertinent to mention here the growing importance of the pre-discharge home visit by the therapist to evaluate the practicality of a patient's assistive devices in relation to, say, a small apartment or house.

A careful analysis of the patient in his total setting can, and has, rendered assistive devices truly assistive.

Lest there be some misunderstanding, the foregoing comments are not, to my mind, in concurrence with Dr. Meyerson's article in the same issue, "Some Observations on the Psychological Role of the Occupational Therapist." Many patients have surprised even themselves when judiciously "pushed" by a good medical team. It is difficult to accept Dr. Meyerson's premise that therapists should stop teaching the severely disabled to walk and to feed themselves because the psychologically painful process will remind the patient that he is no longer physically normal and able to compete. It is only fair to assume that a patient has some chance of benefiting from a rehabilitation regime or it would not have been prescribed. The length of a hospital stay is short compared to the years at home that a permanently disabled person may have. A lifetime of dependency is a high price to pay for a few months relief from the "pressure" described by Dr. Meyerson.

Sincerely,

Ann D. Bastable, O.T.R.

To the Editor:

Lee Meyerson's article on the psychological role of an occupational therapist is the kind of article we in the profession need to have presented to us occasionally. I heartily agree that it is an absolute necessity that more solid theoretical foundations be established to answer the question, as proposed by Dr. Meyerson, relative to determining who is helped by occupational therapy, by what means and why. Undoubtedly, scientific method, as opposed to intuition, is a major channel for the establishment of these foundations. Our failure to build an adequate rationale of the profession cannot be called to our attention too strongly or frequently. It is hoped that Dr. Meyerson's doing so will add stimuli for motivation within a profession which is showing evidences of reaching a state of maturation which will enable it to take definite steps in this direction. Such a course of action is probably the surest method of emancipating the profession from the role of "the hand-maiden of medicine."

A. Jean Ayres, O.T.R.

To the Editor:

Miss Steitz' article, "Functional Bracing of the Upper Extremity," is a concise presentation of the basic types of arm bracing and the probable goals to be obtained through their use.

She has stated that the bracing may be used as a therapeutic aid or as a gain in functional independence or both and made it clear that the occupational therapist must develop a training program similar to an upper extremity prosthesis program, but at the same time remain flexible in meeting changing needs of the individual involved.

It is indeed true that the successful use of such equipment is largely dependent on the efforts of the prescription team. The occupational therapist, during the pre-bracing phase, can do much toward analyzing the abilities, needs, and goals of the individual, and often, through the use of slings and other adapted devices, evaluate the person's "hardware" tolerance. However, the need for a more specific method of testing this type of tolerance has been strongly felt by all the members of the rehabilitation team and recently, at the May T.

Morrison Center for Rehabilitation, two patients have been tested on the California Psychological Inventory. Unfortunately, it is too early to relate the results of these tests but it is hoped that such a procedure would assist the prescription team in outlining more acceptable as well as functional bracing. In some instances, these tests may indicate that the individual is not a suitable candidate for bracing.

If possible, the occupational therapist should work closely with the vocational counselor both before and after the bracing phase in order to establish a more realistic training program and to plan specific work try-outs if indicated.

The author has made some mention of the components of the arm bracing although she has not elaborated on the complexity of many of these braces. We have found it quite essential to prepare the individual for the bracing by means of visual aids and, if possible, "live demonstrations" by other patients.

Miss Steitz is to be commended on this article. It serves as an introduction to the broad field of functional arm brace training and helps the occupational therapist realize the potentialities for work in this area as well as making it very clear the importance of close team work.

Lilian Wegg, O.T.R.

To the Editor:

The article "Functional Bracing of the Upper Extremity" in the May-June issue of AJOT is both pertinent and timely, as is indicated by the recent meeting in California where representatives of centers from all parts of the country met to discuss the various ramifications of this problem. More and more therapists are facing the problems presented by patients who have loss of muscle power in the upper extremities and are without sufficient knowledge and training to meet these problems successfully.

This article by Charlotte Steitz gives a concise summary of the arm functions which can be provided by functional arm bracing, the methods of control or activation of the device and the need for training if the patient is to become efficient in the use of the device.

Since functional arm bracing cannot answer all the problems which arise in trying to make a patient more self-sufficient, it is important that the author indicated the value of special adaptations of equipment and the need for the patient's psychological adjustment to and acceptance of this device.

Sufficient interest may be stimulated by articles such as this one, so that training courses, similar to those in the prosthetics field, may be initiated in this field.

Helen L. Hopkins, O.T.R.

UCP SCHOLARSHIP FUND

During the academic year of 1956-57, United Cerebral Palsy granted \$10,000 for a scholarship fund for occupational therapy students. Each of the 27 OT schools received the equivalent of 80.5 per cent of one year's average tuition costs and the selection of recipients was the responsibility of the college or university scholarship

committee and the director of the occupational therapy curriculum in the institution. This committee then reported to the American Occupational Therapy Association. Thus, recipients were selected by those in a position to know the potentialities and needs of the applicant.

DISBURSEMENTS

	First Installment	Second Installment	Total for 1956-57 academic Year
1. Number of schools participating.....	27	27	27
2. Number of applications for scholarships from this grant.....	163	148	311
3. Number of students receiving awards from this grant.....	37	46*	63
4. Recipients' academic year in school			
a. Sophomore	1	0	1
b. Junior	9	13	22
c. Senior	21	24	45
d. Advanced Standing	3	6	9
e. Clinical year	3	3	6
5. Number of states represented by recipients	18 plus Canada	19 Hawaii plus Canada	23 Hawaii plus Canada
6. Amount of money awarded	\$ 4,146.10	\$ 5,364.96	\$ 9,511.06**
7. Range of scholarship awards	\$20-\$360	\$15-\$324	\$15-\$563.50

* 20 of these recipients also received funds from the first installment

** \$139.42 reallocated from scholarship refunded from 1955-56 fund.

Reviews

STUTTERING, Smiley Blanton, M.D., Guest Editorial, *The Journal of the American Medical Association*, Vol. 160, No. 17, April 28, 1956.

In this article the author examines the phenomenon of stuttering from a study of the establishment of speech patterns. It is pointed out that speech has three basic functions, as follows, in order of importance: (1) to express emotions through tone, inflections, and words; (2) to adjust to other people; and (3) to express ideas.

It is stated that evidence for an organic cause of stuttering, neurological or anatomical, is minimal. In fact, the organs used in speech are also used for the more primitive purposes of coughing, breathing, sucking, chewing and sneezing. Of the 600 speech sounds the baby uses in his babble stage, he must learn to reject all but those utilized in actual adult speech. The failure to make this exclusion of excess primitive sounds is evident in stuttering. A regression to the more primitive actions of the organs used in speech, and a retention of the primitive sounds, are symptoms found in analysis of stuttering.

Actually stuttering is reported to be "a blocking of the person's ability to adjust to other people," a personality defect, not a speech defect, arising in situations which arouse fear and anxiety. Most stutterers, it has been discovered, are able to talk normally when alone, with friends, or talking to animals. Statistics indicate that between 1 per cent and 1.5 per cent of people stutter; the more timid and sensitive an individual is, the more prone he is to spells of stuttering.

Treatment of the stutterer consists primarily in building up his confidence and giving him loving attention, thus helping him to adjust to the group. Formal speech training may prove valuable, but frequently improvement is due as much to the attention the child receives as to the treatment itself. There is no short-cut to treatment for stuttering. In a very young child, a sense of security must be developed by bestowing particular love and affection, if necessary through a reorganization of family life. In adolescence and adulthood, the whole personality may be involved and not just the speech organs. In these individuals, training must be aimed at understanding oneself and learning to adjust without fear and tension to other people.

—D. R. Street, Lt. AMSC (OT)

UPPER EXTREMITY PROSTHESES IN JUVENILE AMPUTEES, Claude N. Lambert, M.D., *The Journal of Bone and Joint Surgery*, Vol. 38-A, No. 2, April, 1956.

An amputee clinic was established at the University of Illinois in the department of orthopaedic surgery following attendance of Claude N. Lambert, M.D., at a pilot training class sponsored by the committee on artificial limbs of the National Research Council of the Veterans Administration. This report is concerned with 60 juvenile patients from the Illinois clinic who had congenital and surgical upper extremity amputations. The author feels that where the problem of fitting a child with a lower extremity prosthesis is much the same as for an adult, fitting juveniles for an upper extremity prosthesis has been more difficult, has received less attention in the past and has benefited greatly by the research done recently in this area.

Based upon the assumed training capabilities of a child, five years was at first selected by the Illinois group as the minimal age for fitting with an upper extremity prosthesis. This was quickly lowered as it was discovered

that a younger child could use a prosthesis to great advantage with even less training. Twenty-two months was finally accepted as the minimal age with the realization that more time and experience might lower the age still further.

The prosthetists have shown keen interest in the problem and have successfully manufactured smaller prostheses which the younger children can manipulate. Most juveniles are fitted with hooks rather than hands because of less expense and greater functional advantage.

There is a definite need for further education of parents, school authorities, playmates of the child with a terminal hook, and society in general. Some schools at present do not allow attendance of a child with a hook as a terminal device on the theoretical grounds that in games or fights he might inflict harm upon others. However, there have been few instances of such accidents. Dr. Lambert feels that when a small child grows up with a prosthesis it is accepted as part of him whereas if fitting is postponed till a later age a prosthesis may often be the cause of more curiosity and embarrassment.

The problem of the desire for a cosmetic hand in place of the hook will be a recurring one as children reach adolescence. For psychological reasons, for a selected few Dr. Lambert hopes that smaller hands will be developed although such hands will not be advocated for all juvenile amputees because the hook will still be the more functional terminal device.

Most of the congenital type of amputations require no surgery and usually everything is left because of the hope that with further growth of the stump a patient may be fitted in later life with a more easily operated prosthesis.

Some surgeons believe that if repeated amputations are necessary, wearing of a prosthesis should be put off until full growth is reached. The people of the Illinois clinic believe the advantages of early fitting, training and use of a prosthesis far outweigh those of postponement because of necessity for reamputations.

—Elizabeth Wood, Lt. AMSC (OT)

SOME PSYCHOLOGICAL PROBLEMS OF PATIENTS WITH MULTIPLE SCLEROSIS, Franklin C. Shontz, Ph.D., *Archives of Physical Medicine and Rehabilitation*, Vol. 37, No. 4, April, 1956.

Recognition of the fact that patients with multiple sclerosis present significant personality types and emotional problems is presented in this article. The facts are based on studies and observations made by Dr. Shontz. Psychological test patterns of these patients show significant differences from those patients with other chronic physical diseases.

Dr. Shontz feels that these differences are due largely to the fact that multiple sclerosis is ambiguous in its disease process, which creates in the mind of the patient great uncertainty in his future plans and future status.

Through group studies it has been the experience of the author that to treat the patient with multiple sclerosis in a group situation, particularly one which is unstructured in its organization, is psychologically unhealthy. No patient in the group seems to assume the leadership role because all patients have similar problems and uncertainty regarding their future. There may be unity in the group, but it is one of repression and shared disappointment rather than a group striving for self improvement. Only those patients who have the inner-strength to resist this pressure will be able to accept and adapt themselves to their limitations.

Consequently the treatment of the patient with multiple sclerosis should strive first to develop a strong feeling of independence within the patient. Planned programs

of activities within the patient's limits may be done through occupational therapy and physical therapy. There is frequently no physical progress noted, but individual attention and a regular schedule to follow can contribute much to the patient's well-being.

Another factor to consider in the overall treatment of the patient with multiple sclerosis is that these patients should not be housed together in an institution. Rather they should live with patients whose physical conditions are basically stable in character; i.e., amputees, paraplegics, etcetera.

—Elizabeth M. Nachod, Capt. AMSC (OT)

FUNCTIONAL BRACING OF THE ARM, Edwin R. Schottstaedt, M.D., and George B. Robinson, *The Journal of Bone and Joint Surgery*, Vol. 38-A, No. 3, June, 1956.

Where the problem of lower extremity bracing is one of static body support to aid in moving from place to place, the problem of upper extremity bracing is one of motion involving substitution for a very complex grasping and positioning device, the normal hand.

A brief review of previously available types of arm bracing is given as an example of useful but for the most part, static equipment. This is followed by a statement of the objective of functional upper extremity bracing, that of restoration of active upper extremity use with return to as nearly normal function as possible. The functional brace may be used to: (1) supplant lost upper extremity function; (2) to assist or supplement lost motor power; (3) to supplement surgical reconstruction.

The authors believe that the team approach of doctor, occupational therapist, physical therapist and prosthetist is the ideal one and that the team's first task is prescription based upon careful analysis of the patient's needs and available motor power. The functional brace should then be made to order to the individual patient.

The functional movements of the upper extremity are listed in order of their importance as: grasp, elbow flexion, internal and external rotation of the shoulder, and forearm pronation and supination.

A discussion of functional braces follows using pictures and explanations of apparatus designed and developed by one of the authors, Mr. George Robinson of Robin-Aids.

The Handy Hand, the Handy Hook, (both for grasp and release purposes), pronation and supination devices, elbow flexion and extension devices (with locks), internal and external shoulder rotation aids (managed by positioning of elbow cable), and shoulder flexion devices are all discussed briefly and clearly and are accompanied by explanatory pictures. Harnessing possibilities are explained and various examples given for powering the upper extremity movements desired.

The authors believe that for both poliomyelitic and peripheral-nerve injury patients, surgical reconstruction when possible is superior to bracing. They feel, however, that functional bracing can supplement such work and be of assistance by providing antagonistic action where needed, by assisting weak muscles to perform through a wider range and by increasing muscle strength due to the constant proper positioning provided by the brace.

A discussion follows by Dr. C. Edwin Irwin, Warm Springs, Georgia. Dr. Irwin states he thinks the braces mentioned have merit, but wonders if the extensive harnessing required might not cause the patient to abandon them upon return to his normal environment.

—Elizabeth J. Wood, 1st Lt. AMSC (OT)

THE CHRONICALLY ILL AND AGING—THE PHYSIATRIST'S RESPONSIBILITY, Murray B. Ferderber M.D., Raymond F. Smith, M.D., Saul Machover, M.D., *Archives of Physical Medicine and Rehabilitation*, Vol. 37, No. 7, July, 1956.

Although members of the medical profession realize an increasing problem in the care of the chronically ill and aging, current methods of treatment leave much to be desired. Since many private institutions do not offer or cannot afford to offer physical medicine services, the opportunity is lost for starting a dynamic physical restoration program during medical treatment. Thus begins the decline to chair or bed and eventually physical destitution. Basic teachings now acquaint members of the medical and allied professions with the problems of these individuals but the gap between definitive care and eventual rehabilitation still remains. The physiatrist could well fill the role of bridging this chasm.

Examples of the team approach were cited for a general hospital, county home and a VA hospital. In all institutions it was found that a dynamic approach to rehabilitation of the chronically ill and aging produced amazing results. Integration of services on all levels and with community agencies in many cases reduced the length of hospital stay and encouraged the patient to become a member of his own staff. Care of the patient no longer ended with definitive treatment. The physiatrist interpreting the expression of these services completed the cycle of rehabilitation. In some cases inexpensive rehabilitation equipment was built. Bed exercises, gradual sitting and soon ambulation followed by greater activity produced many changes in the patients. Incontinence diminished, more patients became ambulatory and some even indicated a desire to return to their community. Aides under medical direction and supervision were utilized to supplement some programs thereby freeing a professional person for more specific treatment.

Current planning of new facilities includes provisions for congeniality of small groups through a modified colony plan, recreation facilities and chapel for all denominations. Educational programs conducted through local television stations provide courses of instruction for the hospital or homebound. These new institutions must be planned on a broad scale to meet the everchanging physical and economic need of future inhabitants. The responsibility of the physiatrist in considering and planning for the total needs of the chronically ill and aging patient is an ever-increasing one.

—Anna M. Doudlah, Lt., AMSC (OT)

THE VALUE OF OCCUPATIONAL AND PHYSICAL THERAPY IN THE SMALL PSYCHIATRIC UNIT.

Eve Rundell, Bernard Kliska, Elizabeth Austin, M.D., and James E. McGinnis, M.D. *The Physical Therapy Review*, 36:12 (December) 1956.

In the Los Angeles County General Hospital psychiatric unit, the physical medicine department has developed a total push program combining both physical and occupational therapy. The program is dynamic, purposeful and takes into consideration the patient's over-all background, his relationship to his environment, and his emotional drives and conflicts. In this way, the patient can be helped to understand his emotional problems and to adjust to reality.

Although the psychiatric unit is primarily a receiving hospital, on one ward 30 patients are able to receive treatment for 90 days or less. Careful selection screens out patients with chronic disorders, so those in the first episode of mental illness and in the acute stage of either

neurosis or psychosis have priority for treatment. Psychotherapy, electro-convulsive therapy and electro-narcosis therapy are available in addition to physical and occupational therapy.

The occupational therapy program is reviewed in some detail. There is information as to the type of prescription used, records kept, conferences held with the psychiatrist and other members of the staff, and specific contributions occupational therapy makes to the total treatment of the patient. The general atmosphere of the clinic is permissive, patients wear their own clothing and are encouraged to take pride in their appearance.

In physical therapy, accepted procedures are used because of the effect which physical agents have upon somatic pathology. These agents (heat, neutral wet sheet packs, etc.) are designed to complement the psychotherapy which the patient is receiving, so they are carefully adapted to the individual patient. The physical therapist is in a position to give psychological support in addition to the treatment itself.

Recreation therapy is included in the treatment program because recreation is a part of a well adjusted life. For one and one-half hours daily, the occupational therapy and physical therapy programs are combined. Social activities are emphasized and classes such as folk dancing, bridge, self-improvement, sculpturing, as well as parties and films are offered according to the interests of the patients.

Consistency in the total treatment program is assured through the adoption of similar aims and attitudes, both departments attending rounds, close interdepartmental coordination and adjacent physical and occupational therapy departments.

—Maryelle Dodds, Capt, AMSC (OT), M.A.

CHILDHOOD SCHIZOPHRENIA: SYMPOSIUM, 1955. *American Journal of Orthopsychiatry*, XXVI:3 (July) 1956.

These research papers are the accomplishments of Bruno Bettelheim, Ph.D., of The Sonia Shankman Orthogenic School of the University of Chicago; S. A. Szurek, M.D., of the University of California School of Medicine and The Langley Porter Clinic, San Francisco; William Goldfarb, M.D., of the Henry H. H. Center for Child Research, N.Y.C.; Patricia Braunstein, M.A., and Irving Lorge, Ph.D., New York City; Leon Eisenberg, M.D., and Leo Kanner, M.D., Children's Psychiatric Service, Johns Hopkins Hospital, Baltimore; and Lauretta Bender, M.D., Department of Psychiatry, New York University College of Medicine. The combined data pertains to autistic studies, speech deviations, unique syndromes observed from infancy through childhood, and therapeutic work concerning parents and children.

—Bertha J. Piper, O.T.R.

ART METAL WORK AND JEWELRY. Louis J. Haas, F.A.A.A., O.T.R. White Plains, New York: 1956, 55 pp., \$3.50.

This booklet is the author's fifth edition of drawings of tools in action showing how to make over 264 designs and over 42 projects on metal-work and jewelry. The first five sheets deal with illustrations of tools and equipment needed for these two crafts with brief remarks on care and upkeep. A valuable part of these pages include how some of the tools can be made from discarded materials. The remaining part of the booklet deals with general instructions and problems necessary for completing the designs and projects presented. There are over 1300 drawings which amply illustrate all difficult techniques. Designs and projects are varied.

A serious disadvantage of this booklet is the omission

of an index, table of contents and page numbers. This limits its use as a handy guide. Although the author states that this booklet is valuable as a graphic self-instruction text, format, presentation and organization hinders this use. The type is by hand with an average of at least 10 hand illustrations per $3\frac{3}{4}$ inches x 6 inches actual page space. Attractiveness is somewhat sacrificed for conciseness. Herein lies the value of this booklet. For one who has a basic understanding of the crafts, this is a complete and inexpensive reference.

—Lester M. Brower, M.A., O.T.R.

THE LOWER EXTREMITY TODDLER AMPUTEE: TRAINING PROCEDURES. Jewell Radford, B.S., and John Steensma, B.A. *The Physical Therapy Review*, 37:1 (January) 1957.

The attempt to stand in an upright position is a natural phenomenon in the human endowed with a normal central nervous system. The toddler amputee is no exception for he too, will attempt to assume an upright position at some time during his development. These attempts should be recognized. At this time the toddler amputee should be fitted with a comfortable prosthesis and be given training in order to accelerate development and to develop a normal gait pattern.

From the time the toddler amputee receives his prosthetic device until the time he walks unassisted, he will have passed through five stages of training in learning to ambulate: (1) assisted standing balance; (2) independent standing balance; (3) supportive ambulation, stationary, (4) supportive ambulation, mobile, (5) independent ambulation. These stages often overlap or may be combined in one training session according to the age, tolerance and condition of the patient.

The apparatus used for training these toddler amputees in each of the above stages, is given in a comprehensive outline which is enriched with photographs of this apparatus in actual use.

—Maryelle Dodds, Capt, AMSC (OT), M.A.

CONSERVATIVE THERAPY IN PERIPHERAL NERVE DYSFUNCTION. K. C. Keeler, M.D. *The Journal of the American Medical Association*, 162:18 (December 29) 1956.

The pathophysiology of peripheral nerves is reviewed as a factual basis for the management of denervated motor elements and joints during that period when voluntary function is absent. Discussed are reaction of degeneration testing, electrical stimulation, chemical and microscopic studies, effects of trauma to a nerve and studies on nerve repair as reported by various writers.

The treatment of peripheral nerve dysfunction by conservative measures is illustrated by a description of physical therapy as applied in the case of the facial nerve and in an extremity. These measures are reported to aim at stimulating the contractile elements of muscle during denervation, at retaining extensibility of fibrous tissues surrounding the muscle fibers, at maintaining elasticity of the capsule about affected joints, at promoting increased blood supply, and finally at insuring functional alignment and partial use of the affected part during periods of denervation and recovery. In this way, . . . "when the nerve does regenerate, the affected mechanism can work," secondary pathology having been minimized.

Specific therapeutic measures discussed include electrical stimulation, and electromyography, dynamic bracing, passive motion, assistive exercises, and active motion with graduated resistance. It is stressed that therapy should be geared to the muscle requirements of the individual patients' occupation.

—D. R. Street, 1st Lt., AMSC.

MUSIC AS A MEDICAL TOOL. "Medicine at Work" Section, *The Journal of the American Medical Association*, 162:18 (December 29), 1956.

Music has for many hundreds of years been used as an adjunct to therapy in various forms, but a scientific study of the relation of music to medicine is relatively recent, starting about 1900.

This paper presents examples of the use of music therapy around the country today. As a passive aid, the use of background music in the operating room, during the administration of anesthesia or surgery, is noted. The active use of music therapy is seen in actual patient participation, both in mental hospitals and in general hospitals to aid in physical rehabilitation programs of orthopedic and neurological patients. Cited as benefiting from the application of music in treatment are cases of patients with arthritis, polio, tuberculosis and rheumatic fever.

It is stated that trained music therapists are increasingly being sought by the more progressive large general hospitals, but that a need for scientific research into music therapy currently exists before it can be fully accepted by the medical profession.

—D. R. Street, 1st Lt., AMSC.

UPPER EXTREMITY AMPUTATION SURGERY AND PROSTHETIC PRESCRIPTION. Robert Mazet, Jr., M.D. Craig L. Taylor, Ph.D., and Charles O. Bechtol, M.D. *The Journal of Bone and Joint Surgery*, 38-A:6 (December) 1956.

A discussion of the successful fitting with upper extremity prosthesis of persons who have had amputations at sites formerly considered undesirable areas. The authors believe that amputation surgery of the upper extremity should be directed toward saving all possible length.

Pictures are shown of armamentarium designed to overcome disadvantages of amputations at formerly hard-to-fit levels. Charts are used to show the changing concept discussed and the type of armamentarium suggested for the various amputee types discussed.

—Elizabeth J. Wood, 1st Lt., AMSC (OT)

EDUCATING SPASTIC CHILDREN. F. Eleanor Schonell, M. A., Ph.D. N. Y. C., Great Britain: Philosophical Library, 1956, 242 pp., \$6.00.

Dr. Schonell, a child psychologist, has worked with cerebral palsied children in Australia and England and here describes research work done by herself and a medical practitioner in England. Between 1947 and 1949 she helped conduct a medical and psychological survey of cerebral palsied children in the West Midland area of England in order to determine the causation, incidence and educability of these children in and around Birmingham.

Dr. Schonell explains the tests used for measuring the intelligence of the children and presents the findings with tables of figures and analyses of same. She discusses the placement of these children in schools, present provision and best type of education for them to produce greatest progress in academic learning. The Carlson House School, a day school for cerebral palsied children, was planned as much like an ordinary school as possible with the addition of occupational, physical and speech therapy. The main purpose of the school was to provide education for the young cerebral palsied child so

that his mind could be trained along with his physical condition.

The psychology of the cerebral palsied is discussed with some helpful ideas for training in the home by parents, such as equipment for sitting and standing, games and occupations and some OT aids such as button and lacing boards.

This book is interesting in that it describes some of the work being done presently in England for the cerebral palsied. The book is definitely written from an educator's viewpoint so that there is very little in it pertaining to the therapies. Nor, surprisingly, is there any mention made of the aphasic difficulties so often found in the cerebral palsied. Otherwise, this material is quite helpful to parents or teachers of cerebral palsied children.

—Adaline J. Plank, O.T.R.

GUIDES TO ACTION ON CHRONIC ILLNESS, 1956 National Health Forum. New York: National Health Council.

A report of the discussions and talks given at the 1956 National Health Forum held March 21 and 22 in New York City. The topics cover the actions which should and can be taken on chronic illness.

Chronic illness is discussed as a national problem and then related to the specific problems encountered in home care, institutional care and the general problem of rehabilitation.

A discussion of the costs of chronic illness shows the need for funds from philanthropies and taxes to supplement individual care in order to establish an effective program within a community.

Chief focus of this report is upon "the unprecedented type and degree of community cooperation" required by today's new health needs.

FILMS FOR ADULT EDUCATION—FOR USE IN SCHOOL AND COMMUNITY PROGRAMS, 4 pages, 8½x11", booklet, free, International Film Bureau, Inc., 57 E. Jackson Blvd., Chicago 4, Ill.

A listing of 34 films available for sale by the International Film Bureau. Each film is identified by name, running time and sale price, followed by a short synopsis of what the film is about. Two of the Films: *A Day at the Washington Boulevard School* and *Man to Man* are of interest to occupational therapists and have not been previously listed in AJOT film bibliographies. The booklet is of value for the files of the therapist.

—Harold Shalik, O.T.R.

THE NEUROSES OF CLINICAL PRACTICE, Henry P. Laughlin, M.D. W. B. Saunders Co., Philadelphia and London, 1956, 800 pp.

This is an elaborate examination of the diagnoses, psychodynamics and treatment procedures encountered in the neuroses. It contains outlines of classifications of emotional and mental illnesses, character defenses, phobias and neurasthenic features. It is well illustrated with case material observed by the author in clinical practice. Brief references are included pertaining to earlier studies made by medical authorities, viz. Mesmer, Charcot, Janet, Freud, Kraepelin, Bleuler, et al. A glossary of psychiatric concepts and terms is an additional aspect of this valuable, lucid and interesting textbook.

—Bertha J. Piper, O.T.R.

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POSITIONS AVAILABLE

Occupational therapists, registered; staff level; interested in working with amputees, polios, paraplegics, cerebral palsy and related diagnoses. Present plant includes 70 bed rehabilitation hospital and a cerebral palsy outpatient school and therapy unit with a capacity of 35 children. Plans are being formulated for the expansion of these facilities to meet the growing demand of the community. Personnel policies include accumulative sick leave benefits; non-contributory retirement plan and social security; 40 hour week; three weeks vacation, seven paid holidays; salary commensurate with experience and training. Apply Administrator, Eastern N.Y. Orthopaedic Hospital-School, Inc., 124 Rosa Road, Schenectady, N.Y.

Director of department of occupational therapy in rehabilitation hospital for children and adults. Present capacity is 70 beds and hospital is now in initial stages of planning expansion of in-patient and out-patient facilities. Would prefer therapist who has been associated with the type of program conducted by Liberty Mutual or a university affiliated rehabilitation center. Personnel policies include 40 hour week, three weeks vacation, seven paid holidays, accumulative sick leave benefits, non-contributory retirement plan and social security coverage. Salary commensurate with therapist's experience and training. Apply Administrator, Eastern N.Y. Orthopaedic Hospital-School, Inc., 124 Rosa Road, Schenectady, N.Y.

Training and research opportunities for registered occupational therapists at Eastern Pennsylvania Psychiatric Institute. 250 bed adult unit, and 50 bed children's unit. Newly completed modern psychiatric institute providing opportunities for training students and research. Departmental coordination enriches treatment and resources available. One position available in the children's unit and one position available in the adult unit at the present time. Write to: Barbara Schuerch, Director Occupational Therapy, Eastern Psychiatric Institute, Henry Ave. and Abbottsford Road, Philadelphia 29, Pa.

Positions open for one chief occupational therapist and two staff therapists at University Hospitals of Cleveland. Program directed primarily in functional ADL and psychiatry. Excellent educational and teaching facilities. Located in cultural heart of city. Good salary. Write to Dr. Hilda B. Case, Director of Physical Medicine and Rehabilitation, 2065 Adelbert Road, Cleveland 6, Ohio.

Staff position open for registered occupational therapist. Salary open. Pleasant surroundings and working conditions. Contact Dr. C. G. Ingham, Superintendent, Norfolk State Hospital, Norfolk, Nebr.

AJOT XI, 4, 1957, Part I

Registered occupational therapists for 300 bed private neuropsychiatric hospital, 25 miles from New York City. Clinical training program; group insurance, retirement and other personnel benefits. Salary commensurate with experience. Maintenance optional. Write Mrs. E. S. Owen, O.T.R., The New York Hospital, Westchester Division, 121 Westchester Avenue, White Plains, New York.

Occupational therapist for well-equipped outpatient center established 1950, offering nursery school, speech, occupational and physical therapy to cerebral palsied children. Beginning salary \$3800, more if experienced. Regular increments. Five day week, four week summer vacation, nine day Christmas holiday, sick leave, and social security. Write Miss Virginia Pettit, Director, United Cerebral Palsy of Cincinnati, Inc., 3601 Victory Parkway, Cincinnati 29, Ohio.

Wanted: qualified occupational therapist, male or female, for rehabilitation center which provides full rehabilitation services for in-patients and out-patients. Desirable working conditions and salary. Employment date: July 31, 1957. Refer inquiries to: Administrator, Rehabilitation Center, Inc., 340 East Madison Street, Louisville 2, Kentucky.

Registered occupational therapist for 540 bed modern, expanding hospital having medical, surgical, orthopedic, pediatric and psychiatric cases plus a clinic out-patient service. Salary is \$300. Two weeks vacation and 28 days sick leave. Climate is mild. Home of Furman and Bob Jones University. For further information, contact: Cynthia Buckley, Occupational Therapy Dept., Greenville General Hospital, Greenville, South Carolina.

Qualified occupational therapist. Immediate placement in an out-patient cerebral palsy training center. Personnel policies excellent. Liberal salary. Five day week, 9 a.m. to 3:45 p.m. Contact Robert Schlitt, Director, Peninsula Cerebral Palsy Training Center, Walter Reed School, 901 Twenty-fourth Street, Newport News, Virginia.

Occupational therapist staff position, preferable some experience in cerebral palsy. Outpatient center, all ages, offering physical therapy, occupational therapy, speech therapy and special education. Some student training programs. Annual four weeks paid vacation. Hours 8:30 to 4:00. Monday through Friday. Salary open. Apply: C. Scott Stewart, M.D., Medical Director, 502 West Mistletoe Avenue, United Cerebral Palsy Treatment Center, San Antonio, Texas.

Wanted: registered occupational therapist by October 1st, to take charge of well established center dealing with generally handicapping conditions. Salary dependent on qualifications. Contact Mrs. Roy Nagel, Coordinator, Gateway Therapy Center, 650 Mathews, Fort Collins, Colorado.

Registered female occupational therapist for staff position in university center hospital. Knowledge of women's crafts is essential. Write to Mr. R. Nagorka, O.T.R., Director of OT Dept., Psychiatric Institute, 645 West Redwood Street, Baltimore 1, Maryland.

Wanted: Occupational therapist for cerebral palsy treatment center. Salary contingent on education and experience. Center established in 1949 but now housed in new modern building just completed. Apply Mrs. Olive Lewis, Supervisor, Tennessee-Virginia Cerebral Palsy Center, Kingsport, Tennessee.

Immediate opening for director of occupational therapy department. Salary open. Pleasant surroundings and working conditions. OT dept. now operating in the New Norfolk State Hospital Administration Building, with spacious quarters, new and modern equipment. Contact Dr. C. G. Ingham, Supt., Norfolk State Hospital, Norfolk, Nebraska.

Positions open for staff therapists in progressive well-equipped OT department of largest private mental hospital (750 beds) in USA. Well-rounded program includes both workshop and ward classes. Paid annual vacation and sick leave; laundry and maintenance provided. Pleasant working conditions, beautiful surroundings. Write to Dr. J. Butler Tompkins, Superintendent, Brattleboro Retreat, Brattleboro, Vermont.

University medical center—registered occupational therapists. Directorship and staff positions available in department of psychiatry. Modern teaching hospital with 72 psychiatric beds. Work in close cooperation with psychiatric training program. Well-equipped facilities which are just being expanded. Situated in small university town with unusual cultural and recreational facilities. Salary: director, \$4456 to \$5376; staff, \$3516 to \$4312. Three weeks paid vacation plus holidays, two weeks sick benefits. Write for details and applications to George C. Ham, M.D., Chairman, Department of Psychiatry, University of North Carolina, Chapel Hill, N. C.

Help! Our occupational therapist contributes to spiraling birth rate! Dynamic home rehabilitation program is jeopardized! Salary \$4,100-\$4,900. Write Visiting Nurse Assoc., 51 W. Warren, Detroit, Michigan.

Registered occupational therapist for state hospital with new equipment and an expanding program. Write to Dr. P. L. Hays, Superintendent, P.O. Box 69, Vinita, Oklahoma, for further information.

Position for occupational therapist open Hamilton, Ohio. Therapist to work at school for crippled children also general hospital experience. Apply Butler County Society for Crippled Children, 405 Rentschler Bldg., Hamilton, Ohio.

Denver, Colorado, has an opening for an Occupational Therapist I at Denver General Hospital. Completion of approved training course in occupational therapy plus registration or eligibility for registration as an occupational therapist by the American Occupational Therapy Association are required. Salary range \$306-\$383. For information write: Career Service Authority, Room 178, City and County Building, Denver, Colorado.

We are interested in recent graduates, yes; but we are also interested in staffing our hospital with experienced personnel people in key positions. The growth and development both physically and program-wise of the hospital makes it an exciting place to work. The unusual combination of a teaching and a service hospital gives a unique function. The hospital is a children's hospital located in Columbus, Ohio. There are openings for two registered occupational therapists. Write Children's Hospital, 17th St. at Livingston Park, Columbus 5, Ohio.

Staff position open for registered occupational therapist. Expanding program in state psychiatric hospital. Maintenance \$40.00 per month, \$3,912-\$4,800, 40-hr. week, two weeks vacation, liberal sick leave and retirement benefits, civil service. Write R. H. Miller, O.T.R., Oregon State Hospital, Salem, Oregon.

Excellent position available in a small modern convalescent hospital for the geriatric patient. Therapist to work in physical injuries. Hospital is in close proximity to university hospitals and Western Reserve University. Excellent working conditions. Salary open. Apply: Austin B. Chinn, M.D., The Benjamin Rose Hospital, 2073 Abington Road, Cleveland 6, Ohio.

California has openings in its state hospitals and schools for cerebral palsied children for occupational therapists who have graduated from an approved occupational therapy school and have completed the required clinical training. Opportunities for advancement. Excellent employee benefits. Write for information about appointments and new salary schedule effective July 1, 1957, Medical Recruitment Unit, Box 50, State Personnel Board, 801 Capitol Avenue, Sacramento.

O.T.R. interested in accelerated program for 200-bed tuberculosis sanatorium. Modern and well-equipped OT and rehabilitation department of eight staff. Advancement to assistant and director when capable. Experience not necessary but must have good command of crafts and interest in fast expanding program. Write W. E. Wavering, Rehab. Dir., St. John's San., Springfield, Illinois.

Excellent occupational therapy position available immediately. Top salary. Contact at once if interested. United Cerebral Palsy Clinic of Orange County, 2473 South Orange Blossom Trail, Orlando, Florida.

Registered occupational therapist, male or female, to head department in outpatient rehabilitation unit connected with university medical center. Position available late fall with opening of new building. Salary open. Contact Executive Director, Medical Center Rehabilitation Unit, University of North Dakota, Grand Forks, North Dakota.

Occupational therapist positions immediately available in an active department. 1500 bed chronic disease research hospital expanding to include acute medical and surgical services. Department of physical medicine and rehabilitation affiliated with New York University-Bellevue Medical College. Four weeks paid vacation, holidays, retirement plan, five day week, sick benefits. Write: Miss Frances E. Heess, O.T.R., Goldwater Memorial Hospital, Welfare Island, New York, N. Y.

Chief therapist to coordinate and supervise out-patient program for cerebral palsied children. Well-equipped center established 1950 supported by Chest. Program includes nursery school and class for mentally retarded children. Pleasant surroundings, competent and congenial staff, opportunity to use initiative. Four week summer vacation, generous Christmas holiday, social security, sick leave, annual increments. Starting salary dependent on qualifications. Interview arranged at our expense. Wire collect Miss Virginia Pettit, Executive Director, United Cerebral Palsy, 3601 Victory Parkway, Cincinnati, Ohio.

Immediate opening for experienced occupational therapist to organize department in new children's 30-bed multi-disability facility. Unit of a medical center which includes 500-bed hospital, medical and nursing schools and progressive research program. Increasing emphasis on rehabilitation training. Unit is completely equipped and air-conditioned, in attractive setting near university. Salary \$4128-\$5160. Apply Martha Norris, Coordinator, University of Virginia Children's Rehabilitation Center, Charlottesville, Va.

In the New York State tuberculosis hospitals, occupational therapy is a dynamic part of the patient's rehabilitation program. Therapists are wanted who are interested in maintaining this concept. Beginning salary is now \$4502. For further details contact: Supervisor of Occupational Therapy, New York State Department of Health, Division of Tuberculosis Control, 84 Holland Avenue, Albany 8, New York.

Wanted immediately: O.T.R. to organize and head department of occupational therapy at out-patient Crippled Children's Treatment Center. Forty hour work week, with two weeks vacation twice a year, also regular holidays. Salary open with yearly increments. Apply to C. Ross Smith, Director, P.O. Box 1054, Pharr, Texas.

Two additional therapists needed to staff progressive rehabilitation center. Liberal salary with merit raises. Usual benefits plus fully paid life insurance and hospitalization plan, also a paid retirement and pension insurance. Write: Personnel Director, Oak Ridge Hospital, 725 Fremont Avenue North, Minneapolis 11, Minnesota.

Rehabilitation director—\$4,060-\$4,957. City of Rockford, Illinois Municipal Tuberculosis Sanatorium. Apply: Civil Service Commission, 126 South First Street, Rockford, Illinois.

Two O.T.R.'s needed to work with physically handicapped and emotionally disturbed patients at institution for mentally retarded and epileptic. New OT building; full equipment and supplies; OT program medically oriented; salary at least \$3600, plus all meals, laundry and medical care; housing available for single person. University of Florida and Medical School in same town, offering many advantages. Write to: Mrs. Grace A. Straw, O.T.R., Florida Farm Colony, Gainesville, Florida.

Position open for chief occupational therapist in a modern, air conditioned out-patient service under the supervision of a physiatrist. Program includes treatment of multiple disabilities with emphasis on team approach. Generous fringe benefits including retirement, life insurance and hospitalization. Salary open, depending on experience. Apply to Ward A. Merrell, Administrator of Rehabilitation Services, Inc., 200 Court Street, Binghamton, New York.

Occupational therapist—experienced with cerebral palsied children preferred. Full time, 37½ hours per week, four weeks vacation, sick leave, health insurance. Salary open with annual increments. Cerebral Palsy Clinic, 610 N. 19 St., Milwaukee 3, Wis.

Immediate vacancies for registered occupational therapists in Rochester, Minnesota, one of the Midwest's finest and fastest growing communities. Private employment—out-patient and hospital services, psychiatry, physical disabilities, ADL, recreation. Very liberal benefit program. Write Personnel Section, Mayo Clinic, Rochester, Minnesota.

Two staff positions open in 1300 bed teaching hospital. Very active and interesting program. Civil service classification and benefits. Salary \$3670-4525 depending on experience. Write Dr. Josephine J. Buchanan, Chief, Department of Physical Medicine and Rehabilitation, District of Columbia General Hospital, Washington 3, D. C.

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Opening available as assistant director in occupational therapy department, Institute for the Crippled and Disabled, a comprehensive rehabilitation center. For further information contact: Miss Thelma L. Wellerson, O.T.R., 400 First Avenue, New York City 10, N. Y.

Wanted: (male or female) recreational director to start new department (hobbies, crafts and occupational therapy) for elderly retired service personnel and employees. Housing, meals and laundry furnished. Position in state personnel system. Write Executive Officer, Indiana State Soldiers' Home, Lafayette, Indiana.

Occupational therapist: openings available in departments of physical medicine and rehabilitation affiliated with medical schools. Starting salary \$3750 per annum, liberal employee benefits. All graduates of approved OT schools eligible. Contact: Dr. B. B. Grynbaum, Dept. of P.M. & R., Bellevue Hospital, New York 16, N. Y.

Occupational therapist for 178 bed general hospital, including a psychiatric service. Salary open. Write Administrator, Holladay Park Hospital, 220 N. E. Multnomah Street, Portland 12, Oregon, giving training experience and salary expected.

Texas, Galveston: The University of Texas Medical Branch. Two staff vacancies; tuberculosis unit, psychiatric unit. For full particulars on salary, educational opportunities and all benefits write Rose Marie Wells, O.T.R., Director, Occupational Therapy Department. University of Texas, Medical Branch, Galveston, Texas.

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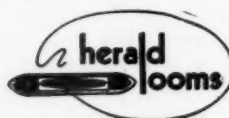
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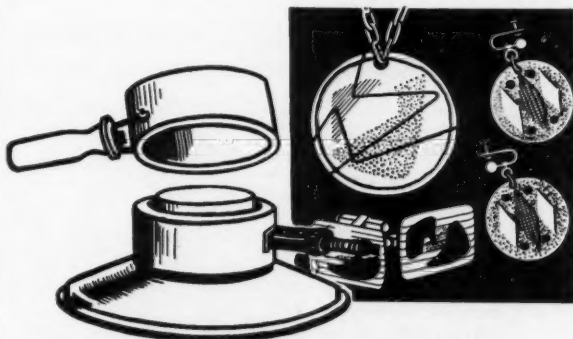
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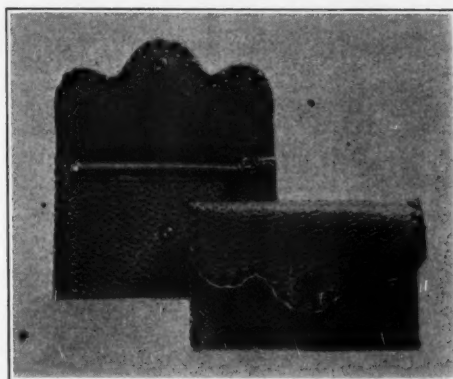
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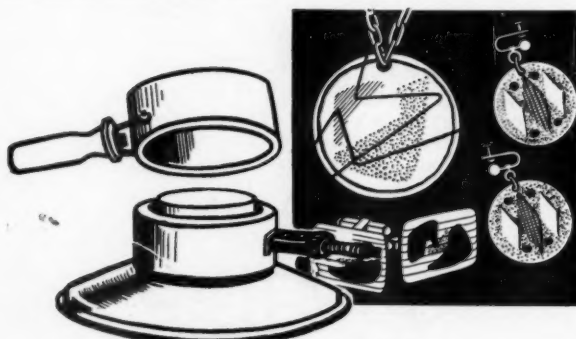
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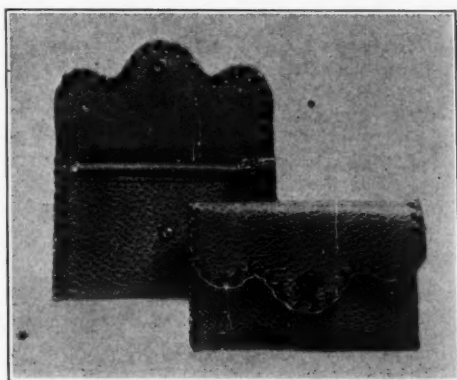
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September 29 to October 5

General Theme **Time for Reflection**

Keynote Address

NEW HORIZONS IN REHABILITATION

Governor Orville L. Freeman*

The concept of rehabilitation is the philosophy that the individual is of value in himself. For this reason if he is disabled the community has a responsibility and an interest in seeing that he is restored again. This social conscience of the value of the individual exists in other areas of our community life. It is applied in our welfare program: adequate homes, adequate support for the aged, for dependent mothers and children, adequate working conditions. It is applied in our educational program to make better public education available to all.

Restoration of the individual through rehabilitation implies that the disabled individual should be made as independent as possible through the utilization of his remaining abilities to care for himself, live as normally as possible in society, and carry on an occupation which makes him economically independent. These goals, if achieved, make that patient of value to himself, to his family and to his community.

The philosophy of the purpose of medical care, of which rehabilitation is a part, has grown as our political philosophy of government and our moral philosophy of the value of the individual has grown. At the time of the founding of the United States an individual was of little value in himself. Men were owned as slaves and others as bondsmen. If a family had no food,

that was unfortunate; no provision was made by the community to care for the members of such families and deaths from starvation and exposure did occur. The first governmental act of the newly established United States which provided medical care was an act of self-protection. Sailors coming from foreign countries to port cities frequently brought epidemic infections like cholera or typhoid fever. About 1790 the United States Public Health Service was established to screen out and care for these sick sailors in order to protect the citizens of the port cities. For this reason good medical care was provided for sick sailors. It is not surprising that although our motives are more altruistic today an evaluation of rehabilitation shows that provision of rehabilitation services is of equal or greater value to the community than to the individual.

Gradually through our national history we have progressed from a time when life and manpower was cheap to a time when manpower is expensive and in short supply. Concurrently with these changes our concept of the value of the individual has developed. It has been especially at the times when there has been a great shortage of manpower that rehabilitation has developed most rapidly. During the First World War physical and occupational therapy were util-

*Governor of Minnesota.

ized to shorten the convalescence of wounded soldiers so that they could return to combat. As a result of the experience in the military hospitals, both physical and occupational therapy were established in civilian hospitals. During the Second World War we were faced with a situation in which we not only had a shortage of soldiers for combat but also a shortage of workers in industry. We were in an all-out war involving all of our industrial resources. We could have lost that war on the industrial front as well as on the battle front. We were pressed into using all available manpower for that total war effort. We began to realize that if we could not restore wounded soldiers for return to combat we might be able to rehabilitate them to work in industry to meet that national need. In order to accomplish rehabilitation as quickly as possible we needed to use all possible methods. Medicine, surgery, physical therapy, occupational therapy, speech therapy, testing, counseling, guidance and education were all used in an integrated plan to restore the wounded soldier. Special employment offices were established to place these men and special appeals were made to industry to adapt equipment so that handicapped workers could use it. It was shown that the program worked. Men with physical handicaps could be retrained to do productive work in industry if the right job were found.

Of course, it was not all clear sailing. There were many false starts and often there were bottlenecks. At times attempts were made to train men for specific jobs which needed to be filled rather than training each man for the job in which he had an interest and aptitude. Out of our experience during the war it was demonstrated that complete rehabilitation was effective; it made the wounded soldier satisfied and productive again; and it saved money for the state and the nation.

We had other changes, too, during the interval between the first and second World Wars. Our interest in the individual as an individual and our community responsibility for the general welfare had developed remarkably. Under Franklin D. Roosevelt, we developed social security, greatly extended wage and hour laws, provided greater protection for the workman in industry, and programs for support, medical care and education of persons not able to care adequately for themselves, such as programs for dependent mothers and children. We have come to realize that direct relief is a community burden which will continue unless we can go beyond bare maintenance and help people in need to become self-sufficient again. We have now reached the stage in our thinking where we realize that it is as valuable to restore the disabled worker,

the disabled housewife or the handicapped child as it was to rehabilitate the disabled soldier.

As we look to the future to make plans for rehabilitation of disabled persons, how large is this problem? There has never been a complete survey of the need for rehabilitation. Sample surveys indicate, however, that at the present time the need for services is far greater than our facilities can handle. Let us just consider the needs in Minnesota as an example. Provision for general medical and surgical care for disabled persons is fairly adequate. There is inadequate psychiatric care available and we are in desperate need of more psychiatrists in order to develop a therapeutic program. For the medical phases of rehabilitation we do not have enough hospital beds, therapeutic facilities, psychiatrists, occupational therapists, physical therapists, speech therapists, nurses trained for rehabilitation, or social workers. We do not have enough vocational counselors trained to counsel the physically handicapped. We have yet to develop an efficient program for placing retrained persons in industry.

Our program for rehabilitation has been developing but we still have a long way to go. In 1954 I appointed an advisory committee on rehabilitation of the physically handicapped in order to obtain advice from persons interested in this problem to make our program better. Under the able leadership of Dr. Frank H. Krusen of the Mayo Clinic this committee has been very active in helping to improve and increase services. Through the help of this committee there has been an evaluation of the whole program of vocational rehabilitation. We are just now finishing our assessment and planning the ways of improving this program. We find that in the past the provision of medical care has often not been integrated with the program for counseling and training. Long delays have been costly. Lack of consideration of all of the problems involved in rehabilitation have many times led to failures. We intend to profit from these mistakes to improve our results.

I also appointed an advisory committee on employment of the physically handicapped under the chairmanship of Frank T. Starkey, our commissioner of employment security. This committee has considered the many problems involved in the employment of disabled persons, has helped to interest industries in employment, and educate employers and other workers about the employment of handicapped persons. They have emphasized selective placement of these workers in jobs in which their disability is no handicap to production.

The State Board of Health has considered the

problem of rehabilitation from the standpoint of the establishment of health facilities. It has divided Minnesota into five geographic regions for provision of rehabilitation. We have today a complete rehabilitation center in the southeastern region at Rochester. We are completing a rehabilitation center in Minneapolis, in addition to the one at the University Hospitals, in the central region. We need complete rehabilitation centers in St. Paul and Duluth. In our two rural regions in western Minnesota we have a greater problem in providing total rehabilitation because our population is scattered. To meet the needs of smaller communities our State Board of Health has conceived the idea of satellite rehabilitation services which may not be complete but which can work closely with the complete centers to provide whatever services are needed locally. Under such an arrangement many persons with less severe disabilities could be treated in the local or satellite facility by the physicians, therapists and counselors available there. More severely or more acutely involved patients would be sent to the complete rehabilitation centers. Consultation would be readily available between centers and the satellite services to make this a unified program. This program has worked well for many years between the medical staff at the University of Minnesota Hospitals and the physicians throughout the state. It will work equally well in rehabilitation when these facilities are developed. These rehabilitation services are not necessarily state hospitals but rather may be private, community, non-profit and state facilities working together in a unified program.

This expansion of rehabilitation must have an interest for the profession of occupational therapy. For psychiatric rehabilitation, whether it is through conservative therapy, shock therapy, or the new relaxant drugs, occupational therapy is a most important part of the program. In local hospitals as the concept of rehabilitation develops, there will be a greater need for occu-

pational therapy. Patients will be up more of the time and will be more active. This will require more occupational therapists. In rest homes and homes for the aged more occupational therapy is needed to safely restore patients to full activity or to maintain them physically and emotionally.

One of the most interesting of the newly developing phases of occupational therapy is prevocational testing and training. The occupational therapist with his knowledge of how the hands and arms function to produce skilled movements and with his knowledge of the movements required for any craft can be of great help in the vocational retraining program. If a patient has lost some abilities, what abilities remain that he can use productively? How fast can he work? How precise can he be? How much interest does he have in a job? These are only a few of the questions which the occupational therapist can help to answer after working in a testing shop with a patient. The therapist can also use his knowledge to help the handicapped patient develop enough skills to go to a vocational school for training or to a job. This type of testing and this type of training is available nowhere else. For our rehabilitation program in Minnesota we need rapid expansion of these prevocational training facilities.

The picture which I have tried to paint of rehabilitation is a picture of boundless possibilities. Actually we cannot see the horizon because as we advance our vision enlarges and the horizon recedes. I am sure that in the next ten years we will find ourselves accomplishing much that seems impossible today. Rehabilitation challenges our humanitarian philosophy to help others to help themselves to become independent. It challenges our very practical business-like policy to decrease dependency and economic loss and to increase national productivity. It challenges our democratic way of life to work cooperatively to improve the general welfare.

The editors of the American Journal of Occupational Therapy are proud to present this two-part issue. Part I is the regular bimonthly issue of the American Journal of Occupational Therapy and contains a summary of the annual conference to be held in Cleveland, Ohio, October 19-25. Part II of this issue contains a digest of the speeches from the 1956 conference held in Minneapolis, Minnesota, September 29 to October 5, 1956.

The Eleanor Clark Slagle Lecture was printed in the January-February, 1957, issue of the American Journal of Occupational Therapy, and the transcript of the institute held in connection with the 1956 conference will be printed by the American Occupational Therapy Association in combination with the minutes of the other OVR institutes held during the last year. This report will be available from the New York office.

Session On Psychiatry

REGRESSIVE SHOCK THERAPY

BERNARD C. GLUECK, JR., M.D.*

The specific modification of electro-convulsive therapy to be discussed represents one of many attempts to vary the number and spacing of standard electro-convulsive treatments that have been tried since the first reports on this technique. Since World War II there have been a number of reports, the most interesting being that of Milligan in 1946.¹ He reported on 100 cases who were treated with standard electro-convulsive therapy on a schedule of three each day, until the patient reached what he called a state of "regression." This was marked by behavior like that of the three to four year old child with occasional incontinence, mutism, some neurological symptoms and marked amnesia. He reported considerable success in relieving the symptoms of these patients, most of whom he classified as obsessive-compulsive neurotics. However review of some of his case histories would lead us to believe that he was treating patients that we would classify primarily as schizophrenic reactions of the pseudo-neurotic variety. (See Hoch and Polatin² and Kiesler, F.³) The symptomatic improvement noted in a large percentage of Milligan's cases led us to try this technique on hospitalized patients, most of whom were diagnosed as suffering from some type of schizophrenic disorder. Our combined experience with this therapy in a private sanitarium in the east, in a state prison, and during the past fourteen months on the in-patient service of the department of psychiatry at the University of Minnesota totals over 400 cases, some of whom were treated as long ago as 1948. The first 100 cases were reported on at the 1955 meeting of the American Psychiatric Association, with five-year follow-ups being available on all of those patients. Briefly the results of the first series showed eight patients as having made what was considered to be a complete recovery at the time of leaving the hospital, with forty patients being much improved, and twenty-four patients being improved, which represents 72 per cent of the group. Eleven patients were felt to be only slightly improved, that is, there was some slight lessening of the pathological symptoms, but their functioning continued impaired to the point of requiring further hospitalization. Seventeen patients were thought to be unchanged. At the end of at least three years' follow-up, seventeen patients were in the recovered group, twenty-one in the much improved group and nine in the improved group.

Five were thought to be only slightly improved and seventeen essentially unimproved, while definite information was lacking on thirty-one patients. Of this original group, at the end of three years, twenty-nine were either still in psychiatric hospitals or had been readmitted after very brief stays outside of the hospital. On the basis of this figure of twenty-nine patients known to be hospitalized, we have assumed that seventy-one of our patients were still operating outside of a hospital but we were unable to obtain adequate follow-up material for evaluation on nineteen of these patients. Results since the initial 100 cases have been on a par with this group, or in some cases somewhat better with a more careful selection of patients and with the application of this treatment to more recently developed illnesses.

Our experience in the past fourteen months at the University Hospitals covers fifty-six patients and is, of course, too recent to permit any long-term evaluation of results. However, in the first fifty-six patients treated, two are still in the hospital, leaving fifty-four patients discharged. The results at the time of discharge on these patients showed twenty-six patients, or one-half of the group, rated as much improved, twenty patients rated as improved, six patients rated as only slightly improved and two patients rated as unimproved. Five of these patients have been transferred to other hospitals, four directly from our service and one after a brief period in the community. The remainder are still at home adjusting with varying degrees of adequacy.

The technique of the treatment consists in giving three grand mal seizures per day spaced either at equal intervals during the day, or, as we have been doing recently, two in rapid succession in the morning at about 8:00 a.m. followed by a single treatment in the afternoon at 3:30 to 4:00 p.m. These treatments are given daily including weekends and holidays. We have found that daily treatment, with no intervening days, is of considerable importance in producing the most rapid and effective "regression." The treatment is continued until the patient shows evidence of adequate "regression" which is described briefly as follows: The patient is mute, ataxic, has difficulty in eating, shows double incontinence, shows a total amnesia and

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varying degrees of involvement of the central nervous system, as manifested by neurological changes such as the appearance of abnormal reflexes like the Babinski reflex, ankle clonus, hyperactive deep tendon reflexes, and rigidity of the extremities. At this point those patients require a great deal of nursing care, since they are relatively helpless and need to be fed, bathed and generally watched and cared for. To bring a patient to this state requires an average of forty-two treatments, given over a span of fifteen to eighteen days. Recovery from the regressed state takes about one week for the initial phase, at which point most of the patients begin to verbalize to some extent. At this time they show rather marked anxiety about the total amnesia and begin to ask countless questions which are all directed toward reorientation. One of the important aspects of the care of these patients from the standpoint of the occupational therapist enters at this point. There is a gradual return of motor function and memory, the rapidity varying considerably from patient to patient, depending to a considerable degree upon the effect of the treatment upon the patient's illness. The patients who show a fairly good relief of symptoms seem to have less difficulty with memory than those patients who are still under the influence of their psychological difficulties. However, adequate memory function is not seen much before the fourth week after treatment, and we have observed significant memory difficulties for as long as three months. By three months post treatment, most patients have recovered all of their memory, with the possible exception of the time immediately preceding their hospitalization. This amnesic interval usually corresponds to the duration of the acute psychotic phase of the patient's illness. This may vary from a few weeks to as much as several years, but seems to correlate quite closely with the period of acute psychotic disturbance. This period of time

may never be recovered to any significant degree, but loss of these memories does not seem to disturb most patients, since it was a period of rather serious personality disturbance which they are quite happy to forget. One of the interesting points observed, and this has considerable importance in post-treatment psychotherapy, is the improvement in the ability to recall early material, many patients being able to recall early childhood experiences that had been "forgotten" for many years previously.

In addition to the very important functions served in our institution by the occupational therapists in the initial reorientation of the patient, we feel that we have just begun to explore many very significant contributions that can be made to the total social reorganization of the patient during the recovery period. For many patients this represents a relearning of old skills that were at least partially acquired during their developmental years. However as we get into the treatment of younger patients with earlier symptoms of illness, we find ourselves faced with many individuals who have never learned, at any time in the past, adequate techniques for dealing with social situations on an adult level. It is my hope that in the near future we may be able to develop techniques for helping patients to learn adequate social skills as part of our entire rehabilitation program. In doing this we would certainly require extensive help from the occupational therapist and other rehabilitation workers.

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OCCUPATIONAL THERAPY WITH REGRESSIVE SHOCK PATIENTS

GAYLE E. MATTSON, O.T.R.*

Regressive shock therapy is relatively new in the field of somatic treatments for the emotionally ill and you have just had a presentation of the techniques, the medical considerations, and the nursing and management problems.

Patients undergoing a standard course of electro-shock respond differently to their treatment. Some display little or no confusion; for others, behavior and performance are greatly impaired. Patients react differently during regres-

sive shock also and though we can draw you a general picture of how these people respond, we can offer no set rules that can be applied in working with these patients. This treatment is still in its research stages and we are still learning. This is simply a description of what we see now as our role in the treatment of these patients and what we feel are some of the problems involved.

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The therapist should spend as much time as possible in observation of the patient. In order to work with the patient effectively during the post-treatment period, the therapist must have made his evaluation of the patient, which would include: level of skill and interests, behavior patterns, frustration tolerance, ability to relate and to participate, social skills, and of course history and problem.

After treatment the patient is amnesic and completely dependent on the staff treating him. The regression process seems to proceed rapidly although the patient is able to respond and at first seems more cooperative than before treatment. A general description of the patient relating to the therapist would be: slow, vague, apathetic, completely passive, and in need of guidance, encouragement and stimulation. Activity level is graded according to the regression, however the patient is usually able to do much more than casual observation would lead one to believe. Even when verbal ability is practically nil, the patient is able to engage in some type of activity for short periods of time. Whatever the medium, it must be highly structured, simple and repetitious, i.e., winding warp. The simple media of clay or paint are of little use after the first few days because the patient has "lost" his ability to create. As the process goes on, the patient is no longer relating and the purpose of occupational therapy at this point is to check the level of regression and to maintain activity for prophylactic reasons as long as possible.

Early in our work with these cases, for study purposes, patients were worked with on certain activities until they could not comprehend instructions or coordinate their performance. Then on coming out of treatment they were given the same activities. Consistent with Dr. Glueck's finding that patients seldom remember the behavior they exhibited prior to treatment, they did not remember or have any recall of these activities.

Where occupational therapy is continued throughout the treatment, there is a period of one to three weeks when the patient cannot be worked with. After the treatments are stopped, the patient is watched closely for the return of coordination and speech. To aid in determining this we attempt to get the patient to participate in gross activity games such as throwing and catching the ball, ring toss and bean bag throw. Gradually we resume work with the patient on simple activities to increase his activity level.

With the return of speech many things happen: there seems to be an immediate improve-

ment in comprehension and performance but at the same time the majority of patients go through a period of anxiety and/or disturbed behavior which is a reaction to their complete memory loss, which is very frightening to them. This reaction varies from patient to patient. Sometimes general anxiety and restlessness can be relieved to some extent through orientation cards, verbal reassurance and support from the staff, and through simple group activities and projects. At first we found that the patient's overwhelming concern about himself and what had happened to him was difficult to deal with. The patient asked continually, "Who am I?", "How did I get here?", and although the staff answered these questions, the patient at this point was unable to retain what was told him.

At the suggestion of Dr. Glueck, orientation cards were devised to facilitate this need of the patient. Each card has on it a simple statement of fact in large letters. The information on the cards is based on the questions the patient asks the staff, and are prepared individually for each patient. The therapist or nurse asks the patient to read them aloud to her. Sample cards would be:

My name is John Doe.

My address is 1956 University Avenue.

My age is 28.

My doctor's name is Dr. Glueck.

I have been here four weeks.

It is fall.

This is the University Hospital, Minneapolis, Minnesota.

This is Station 62.

It is a psychiatric ward.

My clothes are being kept in a locker until I leave this station.

I have undergone a series of electro-shock treatments, that is why I cannot remember things. However, my memory will improve each day.

These cards vary from case to case, to avoid areas of conflict that the doctor prefers the patient to remember in due course rather than prematurely. The patient at first glance seems to think the cards a joke, but then becomes quite serious and tries to expand on this material.

During the time patients are attempting to reorient themselves, they seem to perform better in therapist-patient relationship rather than in unstructured group-type activities where they are prone to wander off. The patients' behavior at this point is similar in many respects to that of their early treatment state: comprehension, retention, attention span and coordination are all very poor. They seem distractible, expansive, they need a great deal of support and reassurance and would rather talk than work.

The patients' overall ward behavior and reactions carry over to their performance in occupational therapy and when they become rather

well orientated and their memory block is not as traumatic, they can begin to gain gratification from activity. It is usually at this point that the patient is transferred to another ward for further

treatment where he will be exposed to more structured activities that will reinforce and help him to develop more healthy patterns of adjustment.

OCCUPATIONAL THERAPY DURING THE CONVALESCENCE OF THE REGRESSIVE SHOCK PATIENT

PHYLLIS HETZLER, O.T.R.*

Within three to four weeks after receiving regressive shock therapy, the patients are transferred from the maximum security ward to another locked ward. This ward still affords the security of locked doors but also allows much more freedom and a more homelike setting. Unlike the maximum security ward, the patients on this station are dressed in their own clothes and are able to partake more actively in outdoor activities.

Much of the therapy done at this point is supportive. The anxiety that patients show concerning their loss of memory does not appear as marked as previously, but they still need guidance and reassurance. Much of the patient's memory has returned but this seems to be rather spotty. For example, a patient may be able to recall events of childhood or high school clearly but be unable to remember what his wife looks like. Motor function has nearly returned to normal, but patients usually perform at a slower rate and have some difficulty comprehending instruction.

Many of the patients were admitted to the locked ward prior to their treatment and naturally have been very familiar with the station. In observing patients who have been on the station for relatively long periods of time prior to treatment, several interesting phenomena can be noticed. When being shown the occupational therapy clinic for the first time during the post-treatment period, many state that they do not remember the clinic but they seem to adjust to the routine quickly and need little orientation as to where supplies are kept. Some patients who have been worked with rather intensively in occupational therapy prior to their treatment seem to vaguely remember the therapist.

Transferring the patient from the maximum security ward to the other locked ward seems to have various meanings to different patients. To some it creates more anxiety and they appear to feel lost and bewildered. To others, it means that they are actually getting well and many are certain that they will go home within a week.

One feeling commonly expressed by patients is that of being "re-born." They feel their life is completely uncomplicated by ordinary daily problems and, also, they must relearn everything they had once known.

As patients are going through this period of feeling completely well, it is sometimes difficult to convince them to join activities of any type on the ward. Some feel that they are perfectly well and that the activities that the other patients are engaged in are a waste of time. Gradually these patients are able to work into the ward situation and recognize their problems more realistically.

Initially, the regressive patients are given comparatively simple structured projects requiring gross movements. This type of activity seems to be the least threatening and offers a means of gratification. Because one of our main jobs is observing the reactions of the patients and their level of function, the patients are often allowed to choose their own activities. Many of the patients request projects identical to those completed prior to their treatment even though many times the same patients had been reluctant to do the first project before their treatment. These patients say they have no memory of the first project but they seem to retain some of their previous skill. They seem to learn more quickly and do better work.

One problem in working with the post-regressive patient arises in the patient who has attained a relatively high educational level. Three or four weeks after treatment, these patients appear to be extremely well oriented and seem to be functioning at a much higher level than the average regressive patient. Since these patients are able to cover for some of their memory difficulties by a seemingly excellent command of the English language, it is sometimes difficult to remember that they too are confused and have memory loss. These patients appear so well oriented that it seems unnecessary to give them the uncomplicated, structured projects ordinarily given to

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the post-regressive patient. Letting them go ahead on a more complex activity, however, often results in much anxiety for the patient. For example, one patient who has a degree in social work became extremely angry with herself and was reduced to tears when she had trouble with her project, because she realized that she had previously been able to perform at a much higher level.

One of the most important phases of the treatment of the post-regressive patient is that of social retraining, although for some patients who previously had little or no social skill, it is not a retraining but a learning process. Many of these patients need to learn how to relate to individuals before a group process can be begun.

After receiving regressive treatment, the majority of the patients seem able to relate to people genuinely. Although a good deal of reassurance and sometimes a firm push is needed to help these patients enter into social situations, they seem much more open to suggestion and more motivated to become social beings.

Often when patients are transferred to our open psychiatric ward, they are unable to cope with its more complicated social setting. Here patients do not have the security of the locked ward and many more demands are placed upon them to be more independent.

Since the majority of post-regressive patients have difficulty in interpersonal relationships, we feel that it is extremely important to develop this aspect of rehabilitation. With the need for social retraining in mind, we are now beginning to work out a program jointly with the nursing staff to provide definite group settings which can be used as a tool in rehabilitating these patients. Later when these patients are transferred to the open ward and then sent home, it is hoped they will be better equipped to live normal, happy lives.

Although this treatment is still in its early stages of development, it has shown promise in the rehabilitation of schizophrenic patients. It is hoped that it will find even more success in the future.

THE ATARAXIC DRUGS AND OCCUPATIONAL THERAPY

WILLIAM SCHEELEY, M.D.*

Whenever Man faces a complex problem, he cherishes the hope that he can find a simple solution to that problem. Throughout human history he has sought the mystic herb that will cure all his physical ills. But he has not found that panacea; on the contrary, treatment of the physically ill becomes the more complex—not simpler—as man's understanding of disease and its treatment broadens.

This sober reality is not the less true of the treatment of mental and emotional illness. Always he has hoped for the simple cure. But the more he learns about the human personality, the more ignorant he feels, and treatment of the mentally ill is shown ever again to be a complex matter.

Now we are in the midst of another surge of hope, springing from desperation and nurtured by naivete. We are half-believing that the solution of our mentally ill patients' problems lies in the new tranquilizing, ataraxic drugs such as chlorpromazine, reserpine and the others. With characteristic rashness, many persons have said that these drugs are the key to the massive door blocking the way to recovery from mental illness. These innocents have expected all the variegated and manifold conditions we force together into the category "mental disease" to

respond to ataraxic drug therapy. This cannot be. Disappointment lies ahead.

Our experience with the ataraxics is still too brief and too narrow for us to evaluate them accurately. But we can say with reasonable confidence that many patients have shown substantially modified behavior while receiving them—and that many other patients have shown none. And the amount of improvement exhibited even by those patients benefited varies widely from individual to individual. A very important work yet ahead is discovering the criteria for predicting which patient will and which will not benefit from the ataraxics.

During this present exploration and discovery, the occupational therapist understandably is a not disinterested observer. He is asking: "How will these drugs affect my role in the therapy pattern?" It is in an effort to find answers to these and the related questions that we are here today. Our efforts to find these answers will be handicapped by the fact that opinions as to just how the ataraxics act are differing and in rapid change. We can be sure that what we say today will be obsolete tomorrow. But it is worthwhile to take stock anyhow. We should be able to tease out

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of the conflicting testimony some principles which we can rely upon and which will serve as reference points during the progressive days that undoubtedly lie just before us.

For example, the ataraxic drugs often cause the mentally ill person to be less anxious, less hostile, less assaultive, and less inaccessible. This symptomatic improvement may occur even while the basic pattern of the mental disease itself remains practically unchanged. This improvement may be lasting—or it may be only temporary.

Now what are the implications to the occupational therapist of these two phenomena: that previously inaccessible patients become more accessible, and that this accessibility may be temporary?

In the past, every mental hospital treating chronically ill persons has had a comparatively large number of patients who were so withdrawn, so hard to reach, that they properly were considered unsuitable for occupational therapy. Quite naturally, if a choice had to be made between patients who would and those who would not receive attention, the really vigorous and optimistic occupational therapy efforts tended to be directed toward those patients with greater promise of substantial return per therapist-hour applied.

The coming of the drugs has not changed the soundness of this policy. In the future as in the past (at least in the staff-poor state mental hospitals), the occupational therapist probably will continue to invest the greatest therapeutic effort in the patient whose disease seems active and therefore ready to be modified. But the relative numbers of such active patients in any hospital population will rise as the usage of the drugs widens.

Furthermore, the whole patient population tends to become quieter, more cheerful and better organized as the number of individuals receiving drugs grows. Larger groups of patients can be assembled at one time and worked with. Supervision to prevent fights, flights and suicide attempts is not so constantly required; therefore, the therapist can reach a larger number of patients at a time and in an atmosphere less laden by fear of catastrophe affecting a patient.

Entertainment seems to reach more patients. Group projects requiring patient participation can be made more complex and made available to a larger percentage of the total population. Responsibility can be assigned more widely to patients. This responsibility can be for things, for themselves or for others.

The individuality of each patient is more clearly defined. Attitude therapy, and the attitude contained in the OT prescription is at once

more meaningful to the staff, and also more difficult.

It is more meaningful because the patient is more demonstrative. We have been told that the patient in a catatonic stupor is quite alert to events going on around him—and I suppose he is. But he doesn't show it. So when this same patient has been made just a little more responsive by an ataraxic drug, we feel a little encouraged and are emboldened to continue our work with him.

The greater difficulty in determining the attitude to be employed with each patient arises from the greater individuality of patients receiving drugs. Even the most regressed and withdrawn patients are different from each other. But as the drug combats the regression and withdrawal, peculiar individual traits and characteristics become more clear and vivid. Since attitude therapy must be tailor-made for the particular needs of each patient, and those needs become more complex and mobile during drug therapy, the attitude must be continuously re-evaluated and modified.

More patients will be ready medically to return to the community. Many of these patients were in their teens when they became ill and were admitted to the hospital. They never learned a trade. Others have been in the hospital for decades and have forgotten their trade. Both of these groups will need to work when they leave the hospital, if we are to consider our patients truly restored to the community. The occupational therapist will, therefore, have more patients taking the first steps toward a trade or a skill. Occupational therapy will be expected to serve as the gateway to industrial therapy, vocational training and vocational placement.

Thus we can expect that occupational therapy staffs, already unable in most mental hospitals to meet the need for bringing optimum therapeutic opportunity to all the promising patients, will become even less able to cope with the growing numbers than they are now. The setting up of more extensive OT programs, with numerically larger staffs of therapists to operate them, will become ever more urgent.

The second phenomenon—that drug effects sometimes are transitory—is yet another challenge. Timing of the application of therapy has become even more important.

Some authorities believe that the ultimate etiological basis of mental illness is physical, and other authorities think that mental illness results from morbid experiences of the patient's early personal history. But both kinds of authorities agree that the way the patient's *present* world handles him is important to the current and

future manifestations of his disease. If we did not believe this, we psychiatrists couldn't justify using our therapies. Thus, a person who might make a successful adjustment in a favorable, accepting and stimulating environment will withdraw into profound illness from a rejecting, overwhelming one.

It does seem, at least in some cases, that the drugs enable a withdrawn patient to improve to borderline, that they cause him to take one more look at the world, to give it one more chance, to dare once more to try the adjustment which failed in the past. What the patient sees during this critical second look at the world may make the difference between chancing the long, fearful road to social acceptance or timorously sinking once again into lonely hibernation.

One can state this point another way: Therapy has been called largely a process of retraining the emotions—of correcting faulty conditioned reflexes. If the psychotic person, because of this withdrawal, cannot be reached for such reconditioning, the drugs may be used to open the way for therapy.

Since this opening may last but briefly, the occupational therapist's timing must be just right. He must be ready at the critical moment to go to work, and his energies must be applied with just the right vigor. Too eager pushing may scare the patient away, drug or no; too languid handling may fail to exploit the opportunity adequately.

It does seem to be a characteristic of the response of some patients to these drugs that ground once lost is difficult to regain. If we give a patient chlorpromazine, he may show gratifying improvement. If for some reason his drug is interrupted, he may continue to gain, or he may worsen again. If he worsens and we then resume the drug, in many cases he shows less beneficial effect from even much larger amounts of the drugs.

Discontinuing the drug may arise from an improper evaluation of the patient—we may have mistakenly believed he was more nearly well than he really was. Preventing such regrettable miscalculations depends largely on the information available about the patient. And a potentially rich source of such information is the occupational therapist. Full OT progress notes may spell the difference between premature discontinuance of the drugs, with resultant irrevocable loss of progress, and further use of the drug with ultimate solid and permanent improvement in the patient's condition.

Even when the drug is continued, some patients show initial improvement and then slip back despite increasing drug dosages. We can

only conjecture as to why this should be. Whatever the reason, we can expect that patients improving under drug administration are less apt to slip back permanently if during this initial improvement they can have the warm support of the occupational therapist. This extra modicum of attention may spell the difference between therapeutic success and failure.

The occupational therapist will have to keep informed of when drugs are being given, of anticipated dosage patterns in the future, of signs that the patient's receptiveness to occupational therapy is about to improve or has improved, of side effects of the drug which may affect OT, and of the many other features of the kaleidoscope which is the changing patient.

Let us assume that a previously stagnated patient has, under the combined onslaught of drug and occupational therapy, begun to move. This motion must be kept going until the patient has improved, until he has achieved minimal acceptance by his own world outside the hospital.

The trick, then, will be to keep him moving, to enable him to seize and exploit more and more of the facilities and supports offered him, such as participation in ward routine, group or individual psychotherapy, occupational therapy, personal relationships with staff, patients, volunteers, family and friends, industrial therapy, leisure time activities, vocational training and vocational placement.

Almost every medication, whether used in psychiatry or in other branches of medicine, produces two groups of effects in the patient. The first group of effects are the desired, therapeutic effects. The second group are the undesired effects usually referred to as side-effects. These side-effects may be quite harmless and inconsequential, or they may be uncomfortable for the patient and even dangerous. Often a potentially therapeutic drug is useless to us because, in order to produce an adequate therapeutic effect, we must also produce such distressing and dangerous side-effects as to make use of the drug ill-advised.

Certain dangerous and inconvenient side-effects are produced by the ataraxics. Among the more dangerous of these are suppression of blood element production, liver injury, central nervous system depression and skin disorders. Luckily the really dangerous of these—suppression of blood element production—occurs rarely. The others are more common. But if they are detected early, the psychiatrist may be able to take counter-measures which will both minimize the side-effects and enable the continued use of the drug for its therapeutic effect.

The occupational therapist can make a substantial contribution by being aware of the possi-

bility of such effects, by learning to recognize them, by identifying them in a particular patient, and by calling them to the psychiatrist's attention.

Other side-effects include somnolence, lethargy and fainting. These are not dangerous effects, and they tend to disappear as drug administration continues even if the dosage remains the same or is increased. But they do pose a problem for the occupational therapist. He must devise and apply therapy which will be meaningful to the patient, yet take into account his drug-imposed physical limitations.

Now when several persons attack a problem at the same time, their efforts can reach the highest levels of effectiveness only if they are coordinated. Such coordination requires understanding by each person of the part played by all the others. It requires that each person know what each of the others will do and when. That is, full and facile communication among these concerned persons must be established and maintained.

The locales most commonly employed to provide this understanding and communication is the psychiatric team. Now that the drugs have come, more than ever the occupational therapist properly belongs on that team, and must participate fully with it. He must assist in the formulation of the patient's overall therapeutic plan, and then bring his own activities into the fullest possible consonance with that plan. He must be sure that he understands his assigned role in the management of this particular patient. He must regularly inform the team of what he has given the patient, and of what he has observed about the patient.

The instruments most commonly employed for specifying role and providing communication are prescriptions and progress notes. These are especially important when a patient is receiving

drug therapy and precise coordination and timing are essential. With the objectives clearly defined, the occupational therapist can provide incisive therapy, and can evaluate sharply the effects of his therapy.

Such evaluation is useful. Should occupational therapy fail to provide the expected results, the team's basic estimate of the patient may be wrong, the amount of drug being given may be incorrect, the occupational therapy prescribed may be improper, or some other aspect of the team action may be faulty. In any case, the fact of such failure must be communicated as soon as discovered to the other members of the team so that the flaws in the plan can be found and corrected. Giving such orientation, when needed, is a duty of the occupational therapist.

In summary then, one can say that the ataraxic drugs are not a cure-all which will wipe out mental illness. But they will provide almost full recovery to certain mentally ill individuals, even though they will give no appreciable assistance to other mentally ill persons. Although it is still too soon to evaluate the drugs with any confidence, their greatest value will probably lie in their making large numbers of otherwise untreatable patients amenable to other, more familiar, kinds of therapy. They thus will make availability of occupational therapy all the more urgent, and the demands placed on the occupational therapist can be expected to increase. These demands will be not only for more staff-hours of participation, but also for the application of specifically planned and timed therapeutic activities brought to bear in close coordination with therapy provided by other supporting staff members. This specifying, timing and coordinating are most effectively achieved with the least waste of staff time in the psychiatric team, of which the occupational therapist, even more than before, must be an active member.

40TH ANNUAL CONFERENCE

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

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Cleveland, Ohio

Session On Physical Disabilities

ANALYSIS OF FUNCTIONAL BRACING OF THE HAND

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F.A.C.P.*

Functional bracing is used mostly in akinetic neuromuscular disabilities, that is, in conditions which are caused by the involvement of muscles and result primarily in muscle imbalance characterized by loss or weakness of power to produce motion. Such residuals are found as sequelae of peripheral nerve injuries, poliomyelitis and other paralytic conditions which show involvement of the so-called lower motor neurone.

The application of functional bracing to the hand is based on the laws and principles of biomechanics as they are related to the normal hand. From a functional aspect, the hand can be considered as being composed of two parts, the radial and the ulnar. The radial part, consisting of the thumb, the index and the long fingers, forms the prehensive palmar tripod and is the dynamic unit. The ulnar part, which is made up of the little and ring fingers, provides the supporting action for the prehensive palmar tripod and gives the static control for its action.

The basic function of the hand is to provide the proper grip for functional activities. There are three hand holds: (1) the grasp, as in holding a hammer, (2) the hook, as in holding a handle of a bucket by the fingers and (3) the pinch, as in holding objects by the use of fingers and thumb.

There are three types of pinches:

1. The finger tip prehension, which shows strongly arched fingers. It is commonly used to pick up small objects like pins or nails. This hold is unstable for holding medium sized objects.
2. The lateral or sidewise prehension is accomplished by the thumb clamping against the side of the distal interphalangeal joint or the medial phalanx. This type is used for quick gripping. It is used to wind a watch. It has a limited range of function.
3. The palmar tripod prehension is the natural functional type of grip and is the preferred hold. It provides a greater gripping surface than the other pinches, because it uses the palmar pads of the thumb and the two adjacent digits, the index and long fingers. It gives a secure grip. In this grip, the thumb is fairly straight and the fingers show a gentle flexion. It has a wide range of finger motion to take care of different sized objects.

The function of the hand can be altered by some pathological condition which will interfere with the performance of its activities. In general, these conditions are caused by: (1) loss of elasticity, (2) loss or imbalance of muscular power and (3) skeletal malalignment.

It is necessary to consider the severity of these



Figure 1. Elastic Opponens Assist

causative factors and their relative ratio of importance when selecting a brace. A brace for the rehabilitation of akinetic neuromuscular disorders should: (1) protect the weak muscles, (2) provide assistance, so that a coordinated movement is obtained and (3) prevent and correct contractures and tightness.

It is obvious that each type of disability will require braces which will correct, minimize or balance the disability and provide as functional a hand as possible. Such a brace should provide: (1) maximum mobility, (2) optimal stability and alignment, (3) best prehension commensurate with the disability, (4) maximal sensory surface and (5) free palmar area for gripping.

One of the most incapacitating disabilities affecting the hand is weakness or paralysis of the thumb, because the thumb is of great importance in gripping when it assumes a polar position, and it is absolutely vital in the different pinches.

Of the several different types of disabilities, those that are caused by weakness or paralysis of the thenar muscles are most common and are found following neuromuscular disorders such as poliomyelitis, median nerve palsy or laceration of its motor branches.

In a mild case of disability, there may be only weakness of the opponens muscle. When this weakness occurs, the thumb should be placed in a protected position by bringing it toward the palm of the hand and by placing it slightly into opposition with the fingers.

This is accomplished by the single elastic thumb assist (Figure 1) which utilizes elastic tension to pull the thumb forward from the

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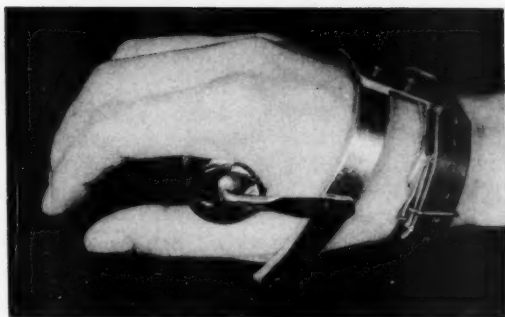


Figure 2. Simple Opponens Splint with Plastic Dowel

hand and into a position of opposition with the fingers. The leather wristlet has a half-circle metal band attached to it which has been molded to fit the ulnar side of the wrist to prevent its displacement. The tension and line of pull are adjusted in each individual case, depending on the imbalance of muscles present. This dynamic or functional orthosis is practical only when the patient is able to extend and flex the thumb and has some abduction present.

In more severe cases of weakness or paralysis of the thenar muscles, the hand requires an orthosis to support the weakness and prevent deformities. This can be accomplished by a basic or simple opponens splint or orthosis. There are numerous types of opponens splints. At Gonzales Warm Springs Foundation, narrow, one-half inch strips of aluminum or stainless steel are used. This method provides several advantages, namely:

1. It is easy to provide an individually measured splint.
2. Adjustments can be made easily without causing malalignment of other parts of the splint.
3. It is more economical because there is no wasted material.

The basic opponens splint, as used at Gonzales Warm Springs Foundation, is composed of a distal metacarpal bar and a proximal carpal bar fitted to the hand and connected on the dorsum by a short dorsal bar. It has an extension into the web space which is either a plastic dowel (Figure 2) or a C-shaped web spreader (Figure 3). The distal or metacarpal bar must: (1) maintain the metacarpal transverse arch and (2) hold the carpo-metacarpal joint of the thumb in proper alignment. To maintain the metacarpal arch, this distal bar is curved snugly around the ulnar side of the hand to end on the palmar surface under and just below the head of the fifth or fourth metacarpal bone. This bar is curved on its dorsal part to correspond to the curve of the metacarpal arch. On the radial side, this distal bar is fitted snugly to hold the carpo-metacarpal joint in proper alignment and places the first metacarpal in a position of func-

tional opposition by exerting pressure on the distal end of the metacarpal bone. The position and shape of this metacarpal bar will prevent or correct tendencies toward the development of a flat hand and contractures and deformities in the carpo-metacarpal joint. The alignment of this distal bar must be changed often if it is used to mobilize tightness in the carpo-metacarpal joint.

The proximal or carpal bar is so placed that it corresponds approximately to the axis of the mid-carpal joint. It will lie somewhat diagonally to the distal bar, both of which will have a



Figure 3. Simple Opponens Splint with C-shaped Spreader.

tendency to converge toward the ulnar border of the hand. If the proximal bar is placed correctly, there should be no limitation of dorsiflexion of the wrist and no undue painful pressure. The carpal bar extends to about the level of the styloid processes, bilaterally, and terminates in a strap which encircles the wrist just proximal to the thenar and hypothenar areas.

The dorsal bar is used only to connect and stabilize the distal and proximal bars. The web spreader is used to abduct the thumb as much as it is functionally possible. The web spreader may be made of a plastic dowel of appropriate size or of a C-shaped bar. Either of these attachments should exert pressure under and just below the head of the second metacarpal bone (of the index finger) and should press against the proximal phalanx of the thumb.

When the C-shaped spreader is used, its ends must be rounded so that it does not cause pain. It should extend along the whole phalanx of the thumb so that it can control the lateral alignment of the metacarpo-phalangeal joint. However, this joint is usually controlled by the distal (metacarpal) bar of the orthosis.

Neither the dowel or the C-spreader should interfere with or limit the flexion of the index finger or the thumb. The C-spreader, technically, provides more space in the palm of the hand; however, from practical experience, the plastic dowel is less troublesome to patients and does

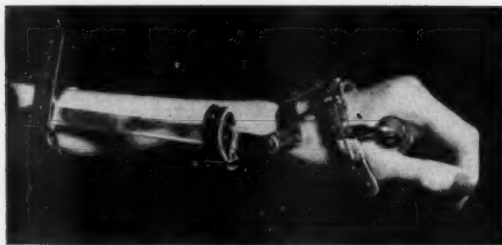


Figure 4. Hinged spring action opponens splint attached to a free hinged wrist splint.

not tend to cause as many sores as the C-spreader.

The web spreader also prevents the splint from sliding off proximally, while the strap, encircling the wrist from the proximal carpal bar, prevents it sliding distally.

If imbalance of the hand is not too great but there is weakness around the thumb, an opponens cuff may be used. These cuffs can be made of plaster of Paris, plastic or metal.

The plaster of Paris cuff is seldom used and only as a temporary splint. The plastic cuff provides satisfactory support if it is fitted correctly. This is the main disadvantage, as it is hard to fit this plastic cuff properly. The metal cuff is



Figure 5. Hinged elastic action opponens cuff

usually about one inch wide and is made of 24 ST aluminum or stainless steel. The splint has the advantage that it has no leather straps so it may be used in activities requiring the hands to be submerged in water. Its disadvantage is that it is hard to fit and align properly.

Both of these are usually equipped with a C-shaped web spreader. The metal cuff may have a dowel for a spreader, but it is felt that the C web spreader has the advantage of allowing more freedom of flexion of the index finger at the metacarpo-phalangeal joint. The main function of the spreader is to prevent tightness of the adductor pollicis muscle.

If the extensor muscles of the thumb and the abductor pollicis longus are functional and it is desired to allow more mobility to the thumb, then a hinged spring action opponens splint may be used (Figure 4). This splint has a hinge with a spring added on the distal bar just above

the insert of the web spreader and approximately on the line corresponding to the longitudinal axis of the second metacarpal.

This orthosis permits greater mobility of the thumb, yet it will provide proper positioning and mobilization at rest. The mobilization, as expressed by the pressure exerted by the distal bar on the carpo-metacarpal joint, is accomplished by the tension of the spring. A metal opponens cuff can also be equipped with a hinge to provide more range for the thumb (Figure 5).



Figure 6. Spring Thumb Extension Assist (Hunter Neg'ator Spring).

If there is weakness in the thumb extensors, especially the extensor pollicis longus, and the flexors are relatively strong, then the thumb may assume a flexed position and lie in the palm. This position will interfere with function and may lead to permanent deformities. This condition can be corrected by the use of a spring or elastic thumb extension assist which is attached to the simple opponens splint. At Gonzales Warm Springs Foundation, this assist is made by using the Hunter Neg'ator Spring (Figure 6).

It has been found that these Hunter Neg'ator Springs make excellent assists for weak muscles. These springs are a commercial product manufactured in a wide variety of sizes and tensions.

In comparison with rubber or elastic bands or other springs, it is found that these springs provide certain qualities which make them more desirable, namely: (1) compactness, (2) constant equal force of tension of each spring regardless of the amount of elongation or deflection of pull (this means that these springs maintain the same tension no matter how much they are stretched,) (3) parallel pull along the approximate axis of pull of the involved muscles and (4) prevent distraction of joints which occurs when a pull is exerted at right angles.

One free end of the spring is attached to a leather cuff encircling the digit and the coil runs freely over a small spindle attached to the support. Care should be exercised in selecting the proper sized spring so that its tension will provide and maintain an optimal muscle balance.

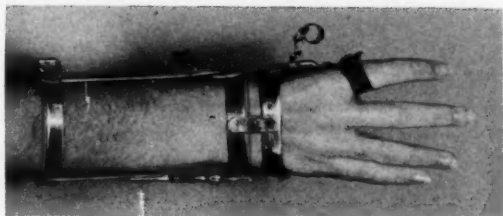


Figure 7. Spring assist for first dorsal interosseus attached to a wrist splint.

Continued use of the thumb extension assist helps the thumb to gain functional strength in extension. Proper placement is important, especially when there is associated weakness in the opponens. The direction of the pull should balance the pull of the flexor pollicis longus with the thumb aligned in a position of opposition. It must abduct the thumb as it extends. As a general rule, the long extensor of the thumb is more severely involved than is usually accepted. In such a case, the leather cuff should be placed on the terminal phalanx. If the short extensor

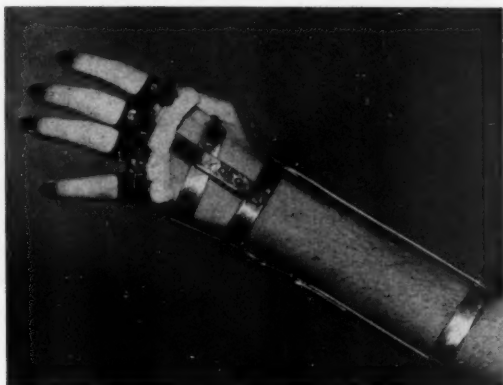


Figure 8. Extrinsic Extensor Assist Attached to a Wrist Splint.

is weak and the long is relatively functional, then the cuff can be placed on the proximal phalanx of the thumb.

If, during function, it is found that the index finger does not meet the thumb and is adducted because of weakness of the first dorsal interosseus muscle, then a spring assist may be added to the simple opponens splint. The spring assist for first dorsal interosseus (Figure 7) used here is activated by a Hunter Neg'ator Spring and it abducts the index finger, thus permitting pinching action between it and the thumb. When the cuff of the assist is placed on the proximal phalanx, it will prevent ulnar deviation, and will tend to promote gain of strength of this muscle.

In the normal hand, the extension of the fingers is accomplished by the extrinsic and intrinsic muscle mechanisms. When only the intrinsic muscle mechanism is strong, the fingers are

flexed at the metacarpo-phalangeal joint and extended at the proximal and distal interphalangeal joints. The hand cannot grasp adequately because of this deformity. The primary weakness occurs in the common extensor of the fingers.

This disability, which is called extrinsic extensor weakness, may be corrected by an extrinsic extensor assist which is composed of a high bar with Hunter Spring attached to the basic opponens splint. However, this opponens splint is

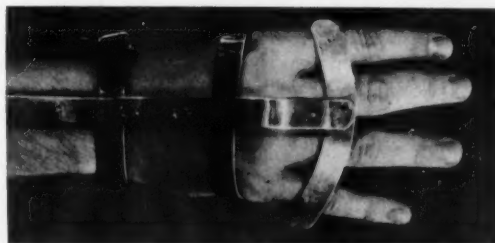


Figure 9. Lumbrical bar attached to a simple opponens splint with static wrist extension.

usually provided with forearm extension to secure better stability (Figure 8).

The high bar does not exert any corrective force. It is only for attachment of the springs. The cuffs of these springs should be placed on the proximal phalanges in extrinsic extensor weakness so that they provide assistance to the weak extensor digitorum communis at the metacarpo-phalangeal joints.



Figure 10. Static Wrist Extension Splint with Intrinsic Extensor Assist.

Weakness in the lumbricales is corrected by a lumbrical bar, usually attached to a basic opponens splint (Figure 9). This bar will prevent the excessive use of the extensors by depressing the metacarpo-phalangeal joint. It is placed across the proximal phalanges. The bar also provides for complete extension of both interphalangeal joints and makes the grip functional. This position of the hand will have a tendency to promote gain of strength of the lumbricales, as it puts them in a position of rest.

When all the intrinsic muscles are weak and there is a relative dominance of the common extensor muscles, the disability will show that the metacarpo-phalangeal joints are hyperextended, the proximal interphalangeal joints usually are flexed and the distal interphalangeal joints



Figure 11. Free Hinge Wrist Splint

are extended. The correction will depend on the muscle involvement. In total intrinsic weakness, an assist consisting of a lumbrical bar with Hunter Springs is used; this is usually attached to an opponens splint. This may be called the total intrinsic muscle assist (Figure 10). The cuffs of these springs should be placed on the middle phalanges if there is persistent flexion in

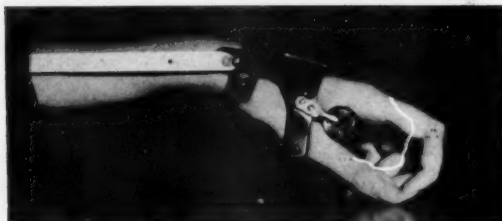


Figure 12. Wrist Splint with Palmar Stop

the proximal interphalangeal joint. This is the more common position. If there is flexion in the distal interphalangeal joints, the cuff should be placed on the distal phalanges.

When there is isolated intrinsic muscle weakness confined to one or more digits, but not involving all, then only those that show weakness are assisted by appropriate springs.



Figure 13. Piano Wire Wrist Extension Splint (Oppenheimer).

When the wrist muscles are very weak or paralyzed, it will result in a flail wrist. Such a wrist must be stabilized to permit any functional action of the hand. In the akinetic neuromuscular disorders, weakness of the wrist is usually associated with weakness of some muscles in the fingers and thumb. Therefore, as a general rule, an opponens splint with static wrist extension is prescribed (Figure 10).

This orthosis is constructed and fitted in the same way as the simple opponens splint, except for the connecting bar which is replaced by a

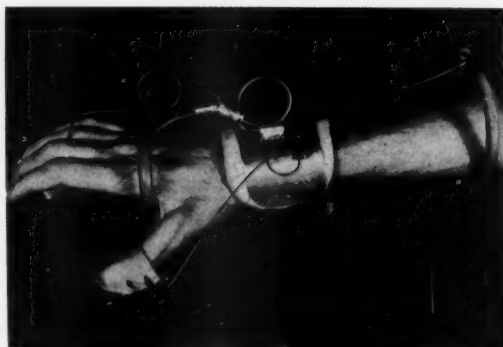


Figure 14. Thomas Wrist Extension Splint

longer central bar. This central bar extends into the forearm and terminates in a forearm metal band and strap at a level well below the bony prominences of the ulna and radius at the elbow. These prominences are left clear. The central bar should not interfere with supination and pronation, and must not limit or interfere with the motion in the elbow.

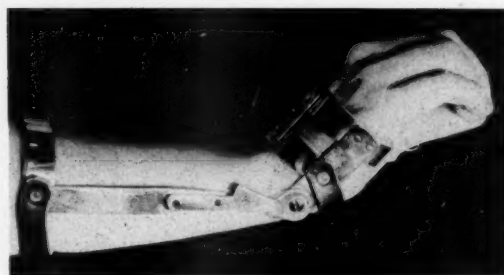


Figure 15. Spring Action Wrist Extension Splint

This central bar should be so aligned that it will permit the hand to have slight ulnar deviation, which is physiological for most activities, and provide slight dorsiflexion (about ten degrees).

When the wrist shows functional and balanced strength in its flexors and extensors but excessive lateral deviation is present, then a free hinged wrist splint (Figure 11) is used which usually is attached to the basic opponens splint but may be attached to any other hand splint for stability.

In this orthosis, there are two side bars, one each on the radial and ulnar side of the forearm which articulate distally with the carpal bar of the hand splint. The axis of the wrist joint is placed between the axes of the midcarpal and carpo-radial joints. This point is selected by finding the place where least motion occurs on flexion and extension of movement. It is impossible at the present time to place the axis of the orthosis in line with the natural joints because flexion of the wrist occurs at the mid-carpal

axis, while extension occurs at the radio-carpal joint. This problem may be solved one day by using two joints. It is important to select the best place for the axis of the splint so that it will not move much during function. This splint appears to help in the realignment of the hand.

When the wrist shows preponderance of flexor activity and the extensors are functionally weak, then any attempt to initiate movement will result in the wrist becoming acutely flexed. This condition is corrected efficiently by the use of a stop on the free hinge wrist splint (Figure 12). This stop is so placed that it will limit the palmar flexion of the wrist to the desired angle, which is usually about ten degrees below the neutral position.

This limited motion is within physiological functional range. With the hand in this position, these patients are able to pick up small objects like pins and perform other activities which they cannot do when the hand is held in the disabling position. If there is a preponderance of extensor activity, and this is rare, then the stop is reversed, limiting the extent of dorsiflexion of the wrist.

When the wrist extensors are not functional, then spring supports of the wrist are necessary to provide balanced motion. The selection of the type of orthosis and the degree of tension of the springs, or spring, depends on several factors, such as: (1) the ratio of strength between all the flexors and extensors acting on the wrist

joint, (2) the weight of the orthosis, (3) the usual activities to be performed and (4) the position of the hand and extremity during such activities.

There are several types of such orthoses, such as the Oppenheimer Hand Splint (Figure 13), the Thomas Hand Splint (Figure 14) and the single action hand splint (Figure 15). The orthosis selected will depend primarily on the degree of muscle involvement.

SUMMARY

Functional bracing of akinetic neuromuscular disabilities is presented. The most simple construction and design of splints for various types of involvement is described. Emphasis is placed on proper fitting, which must provide the best alignment of the splint with regard to the normal biomechanics of the hand. This alignment must preserve the physiologic functions, as nearly normal as is possible, by maintaining the arches of the hand and providing optimal movement along the natural axes.

The orthoses should also be light, easily applicable and not conspicuous. This is one of the reasons why Hunter Springs are recommended. In addition, these springs have a constant tension which provides the weak muscle with a constant support. Hand splints primarily should provide mobility. Stability is only of secondary importance. Permanent splints should be so constructed that they will utilize actively all available muscle power present.

ANALYSIS OF ADAPTED EQUIPMENT*

MURIEL E. ZIMMERMAN, O.T.R.**

PART I

GENERAL INTRODUCTION

The use of self-help devices has become a permanent part of rehabilitation services and will remain so until there are ways to eliminate or prevent permanently crippling disabilities. In fact, this is still a growing program little more than out of its infancy.

Occupational therapists should give serious thought to their potential role in this field. That role will vary in different types of treatment centers and even from one hospital to another in the management of the same disability programs, according to the progress made in the development, refinement and application of such equipment; and last, but not least, according to the preparedness of each therapist.

Through seven and a half years of working in this special field, the author has developed some basic concepts and approaches which it is hoped will help prepare occupational therapists to ac-

cept this new responsibility. Our effort has been largely one of trial and error. However, out of our trial and error methods we are gradually approaching more scientific standards of application.

Some of the studies being made at Georgia Warm Springs Foundation have already been formulated and most admirably presented in an excellent paper entitled "Orthotics for Function, Part II. Patient Training," by Hazel Royall Stevens, R.P.T.¹

There are still, however, some aspects of the program that have not been offered. Occupational therapists will be interested not only in understanding and learning the basic principles of correct fitting and operating of the devices themselves, but more specifically in their application to activi-

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ties of daily living (ADL) and occupational activities. Since the basic motions and forces involved in each movement will vary somewhat with each activity, we should be aware of what they are and be able to evaluate the use of equipment designed to assist in each different activity. Thus we should be able to increase the scope, versatility and positive usefulness of adapted equipment. In addition, so that our observation and evaluation of the device itself is constructive and not merely critical, we should understand as much as possible of the mechanics of the materials and their construction. Otherwise our requests and recommendations to the appliance makers may have little real value. And if, as may well be the case, we are in the position of making the devices ourselves, this knowledge is imperative in order to produce really satisfactory results. And lastly, that our efforts may be even more effective, we must not be without some awareness of the psychological response of the patient himself to the use of mechanical equipment.

We might list then, for the sake of clarity and as a guide, those aspects of the program that an occupational therapist may participate in. They may be any one or all of the following:

1. Testing and analysis of patient's motions in ADL activities for selection of suitable devices.
2. Purchasing of equipment that is commercially available; or interpretation of prescription given to the orthotist or person making the device; or planning and designing of new equipment.
3. Fabrication of the equipment.
4. Checking fit of equipment.
5. Training in use of the equipment.
6. Making recommendations for alterations or adjustments for better fit and/or function.
7. Checking patient for motivation, interest and continued use of device.

In order to accept fully and adequately the responsibilities listed above, the therapist, it is felt, must be equipped with the following information or knowledge:

1. Familiarity with the types of devices that are already in existence and knowledge of how and when each should be used.
2. Knowledge of how to analyze the various motions and forces involved in daily living or occupational activities.
3. Knowledge of the various kinds of materials available, their properties and fabrication methods. (Understanding of manufacturing methods and requirements can be extremely useful and helpful.)
4. Knowledge of the various tools used in the fabrication methods and their proper use.
5. Knowledge of how to design and/or fit the various devices. Understanding of construction design as contrasted with applied and fine arts design is helpful.
6. Understanding of the mechanical operation of the devices themselves and the body motions required to operate them; and knowledge of how to detect the real source of trouble when problems arise.
7. Understanding of the patient's psychological reactions to special equipment.

Since we do not treat the patient individually today, but as members of a team, then, as our reports will assist the doctor and other team members, it is important for us to be informed of the reports of the rest of the group. The following is basic preliminary information which we should have before testing a patient or making any report:

1. *Medical history* including age, diagnosis, date of onset of disability, previous treatment, training and/or use of equipment, and medical prognosis including any necessary precautions. The date of onset and the diagnosis are important insofar as this will definitely influence the approach to the use of any device. The type of device selected for an acute or early convalescent patient may vary considerably from one selected for a patient with a chronic disability. Also, the future physical recovery or regression anticipated and the duration of time prognosticated will be deciding factors in the type of equipment used. Where rapid recovery or short convalescence is expected, making equipment available on a temporary loan basis may expedite provision.
2. *Social report* including previous and present activities or occupations, family and cultural background, and economic status.
3. *Psychological report* of mental status and level of functioning and personality traits. The recommended method of approach to patient.

PART II

ANALYSES OF MOTIONS AND FORCES

Let us go back to the various functions of the occupational therapist and examine some of the basic needs in more detail. We know already something of the kinds of equipment available to us for different activities, but probably less of the why, when, where and how of using it. Therefore we might start with the analysis of a single activity to determine what are the factors or essentials upon which our judgments for selection are based. In addition to our basic knowledge of anatomy and kinesiology in the performance of body parts in general, we must understand what happens when one uses these physical abilities to perform a selected activity—eating, for instance. What are the biodynamics of the activity of eating? We can approach this study very much in the same way that we have been taught to analyze various occupational therapy media for essential motions involved in their use.

A. EATING. To start with, we can observe and analyze the motion of the one hand and arm with which a major portion of the activity is accomplished. Basically, all motions of the hand and arm are involved: grasp, flexion and extension of the wrist, pronation and supination of the forearm, flexion and extension of the elbow, and some flexion, abduction and internal and external rotation of the upper arm at the shoulder joint. However, to achieve satisfactory eating, only some of these motions are essential.

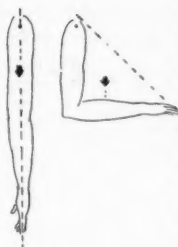


Figure 1

These are grasp, supination and pronation of the forearm, and flexion and extension of the elbow. In regard to the wrist we can do without any active motion, but stabilization in a neutral or slightly cock-up position is necessary. In regard to the upper arm we may also do without any active motion; however, stabilization against hyperextension at the shoulder joint is absolutely necessary and in a position of slight flexion and abduction if possible.

To fully appreciate this last requirement, we must be aware not only of the active motions of the arm, but of the forces of gravity which become important when we lose the motor power to act against it. Take the arm, for instance, when it is hanging straight down at the side of the body. In this position the line of gravity runs from the shoulder in a straight line down through the arm and hand and effects only a downward pull from the shoulder joint. Now flex the elbow to 90 degrees. Since this forms a triangle, the center of gravity moves forward to a point somewhere near the center and towards the base of the triangle—or slightly above the center of the lower arm (Fig. 1) and effects a downward force on the lower arm. If there is no power in the upper arm or shoulder to resist this force, then the arm is forced into a position of hyperextension at the shoulder (Fig. 2). This is important to many activities, but to eating especially, because with the upper arm in hyperextension, even with full flexion of the lower arm, one cannot reach the mouth. Where some weakness in flexion of the lower arm is present it is doubly important, as it increases the total amount of effort necessary to raise the hand to the mouth. In fact, many times a fairly functional forearm flexion may be made non-functional by neglect of the accessory action supplied by the shoulder.

Now that we understand the motions and forces involved in the activity of eating, we are ready to test the patient and select a suitable device.

Let us start with grasp. Devices for grasp may be used to: (a) assist in assuming the normal position of holding, (b) utilize any type of grasp that is possible, (c) assist holding and help correct or prevent deformities.

There are many adapted utensils that have already been designed for this purpose. If the weakness is minimal, we might use one of the following:

1. Handle built up with sponge or a wooden file handle. The large grip-shaped handles available commercially may also be used. These we have found most helpful in cases such as cerebral palsy or multiple sclerosis.

One of the newest devices of this type was recently produced by a manufacturer of adapted equipment. The handle is equipped with short vertical and horizontal dowels or pegs, placed as to guide and support the fingers in the correct holding position.

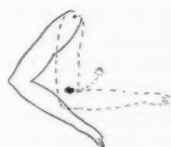


Figure 2

There may be times when even less assistance is necessary. Bending the handle of the utensil to entwine in the fingers or turning it so as to grasp between two fingers may be all that is needed.

2. Where additional assistance is necessary, more elaborate devices may be used, such as holders equipped with rings to slip on over the thumb and a finger, or a curved metal strip may be added to hook over the thumb and middle finger. When there is limitation of motion at the metacarpal phalangeal joints; flexion may be encouraged by padding the top of the handle of this last device. Or, a patient may be wearing instead a corrective splint for this purpose, such as a Bunnell knuckle bender, and can utilize the splint for holding the utensil. This encourages the patient to wear the splint, makes it functional as well as corrective, and saves using two separate pieces of equipment.

3. For complete loss of grasp there may be several types of device, such as a simple leather utensil holder to slip on over the fingers or the C-clip type to slip over the metacarpals when there is flexion deformity of the fingers. The latter design necessitates fastening, and to fasten the strap a stud can be managed by many and is generally better than buckles or snaps. Or one may use the artificial hook mounted under the palm of the hand and operated by a cable to the opposite shoulder, as in the Handi-Hook designed by Robin-Aids of California. Recently, the more favored approach in this direction is to incorporate the hand into a splint, using the thumb opposing the fingers, giving pinch grasp similar to a hook.

One can go on to select those devices for aiding or substituting for wrist motion or stabilization, supination and pronation, elbow flexion and shoulder motion or positioning. And it would be leaving the work only half finished not to include other requirements of eating, such as the use of the other hand, as in cutting, types

of dishes, and even furniture like tables and lapboards. Again, eating may be done not only in the sitting position, but half reclining or in the supine position, and even in prone position, as during the time a patient is on a Stryker frame.

The above analysis of the activity of eating is far from complete, but it will serve as an introduction to the subject. Table I gives a more detailed analysis and list of equipment.

B. *WRITING.* A few moments may well be spent in discussing the activity of writing. Again, we may start with the motions of the one hand and arm. This time the motion analysis will show some similarity to eating, but there are significant differences which need careful observation.

Grasp again is essential and this time the *type of grasp* is more important, for experience has shown that the best results in writing are obtained when the fingers are held or positioned onto the pen or pencil. This increases stabilization of the pencil and assists in putting more direct force and control into the actual writing. Again, stabilization of the wrist in a slightly cock-up or neutral position is important—but slight motion is extremely helpful, especially flexion, which can substitute for a weak triceps. Although extension of the forearm is not an *active motion* in writing, still this action is necessary to stabilize and hold the arm in position when pressure or force is applied to the paper to write. Some inward and outward rotation of the upper arm is necessary to move the hand across the paper. Again, stabilization of the upper arm in a position of slight flexion and abduction is necessary, although if the arm is fully supported on the writing surface this may automatically be taken care of.

Examination of some of the various writing devices is as follows:

1. The device to aid in grasp with minimal weakness may be just a built-up pencil, a leather writing aid to hold the fingers on the pencil, or a double metal clip, one for the thumb and one for the pencil.

2. In cases of more severe weakness, a Fiberglass molded cuff to hold the fingers and hand in a position of grasp with a metal spring clip to keep pencil in place may be used. Other varieties are metal finger rings or bands attached to a rod which clips on to the pencil, or a wooden clothes pin with dowel rods to hold fingers in position.

3. To provide pressure when wrist flexion or stabilization is absent, the Fiberglass cuff can be attached to a wrist cuff by means of hinged

metal side-bars and a connecting piece of elastic webbing crossing the wrist on the under side.

4. To aid in moving the arm across the paper a small arm cradle with ball bearings as feet has been used, although this device may be difficult to control in order to obtain very good writing. A smooth, glassy surface, such as Formica laminated masonite, usually gives better results. If necessary, sling or other arm supports or arm braces must be used.

With any writing device the selection of the writing implement is important. With the invention of the ball point pen it was thought that the problem had been solved. However, after much trial and error, our experiments to date have shown us that some pens are better than some ball points. The slim Scripto-type of ball point pen seems to be the best variety to use. This makes a good clear mark with the least amount of pressure and from varying angles.

Again other problems such as type and positioning of paper, holding of paper, and height and angle of table or writing surface have not been considered. A more complete analysis is found in Table No. II.

In each of the two above described activities no specific mention has been made of the training methods. This is another subject for discussion that will not be covered in this paper.

PART III

MATERIALS: THEIR PROPERTIES, USES AND CONSTRUCTION

The knowledge of the various types of suitable materials for fabrication of devices is important in producing the best results not only for function, but for a more acceptable and durable piece of equipment and for ease in handling and care of equipment. There are two approaches to this need: (1) study of materials and their properties, (2) basic knowledge of good construction design.

Of the two requirements, many therapists have made a good start on the first, but on the second we have barely begun to become acquainted with the fundamentals.

First, let us consider some of the various materials, their properties and uses.

Metal is an old standby for the brace and splint maker, but the average occupational therapist has little real working experience of the processes involved in making either splints or other devices. Of the metals, aluminum, Monel metal, cold rolled steel, stainless steel or chromium plated steel, and spring steel are the most used.

Of each of these metals, there are many al-

loys. (How many readers know that there are hundreds of different types of steel alone, and a great many types of aluminum and other metals?) Also, these may come cold rolled, heat treated, in all degrees of hardness, thickness and with different corrosion properties. Each of these differences or specifications has a significance that is important to the user according to *what* he intends to make and *how* he intends to make it. At the beginning of the project this director would have been utterly unable personally to meet such information requirements. Fortunately, there is a staff member who is a skilled precision mechanic—a tool and die maker—who knows the answers. A discussion of what has been learned from him follows.

Some examples will be cited of the ways in which thinking has been changed by experience and additional knowledge. When the project first started, one of the goals most important was to have everything designed to be as light in weight as possible. Since *aluminum* is the lightest metal, it was naturally assumed that aluminum was the ideal choice of metal. It is lighter in weight than other metals and we do use it for many devices for that reason, but just as often we are now using both Monel metal and some form of steel almost as frequently. This is because steel, although three times the weight of aluminum, is also at least twice as strong. Therefore, to obtain the required strength, your piece of steel can be at least half the thickness of the piece of aluminum, thus reducing the weight proportionally, so that you have little difference in weight and much less bulk. Since a second requirement for devices was to make them as neat, small and inconspicuous as possible, this comparison was significant.

Steel, of course, has a disadvantage not to be overlooked. While it can be polished to look as beautiful as aluminum, it does not long retain this finish. In a short time it begins to rust. Chrome-plated steel was tried; but if careful workmanship is not used in fabrication, small scratches and nicks are likely to be present. And then again, corrosion is a problem. Stainless steel, of course, is one answer, or chrome plating after the product is finished. Both approaches present additional problems. Stainless steel is expensive and very difficult to work with. Chrome plating is not a job that can be easily done in the small shop, but must generally be sent outside. And jobbers of this sort are not interested in such small bits of work as we would have ordinarily.

Monel metal was the next metal tried. This is heavier than aluminum; about the same as steel in weight and strength. Its finish, however,

is permanent. It polishes to a dull gloss, and does not give off the black smudge that aluminum does when it comes in contact with skin or clothing.

Two specific examples showing what has been discussed can be illustrated as follows: For hand splints, both aluminum and Monel have been found to be most satisfactory; Monel for parts like the wrist support, where force is applied, and aluminum for other small parts. Also, where brazing or silver soldering of parts is necessary, monel is used because it can be soldered and aluminum cannot. Thus in the opponens hand splint, the dorsal bar may be made of aluminum and the C-bar and connecting rod from Monel. A further reason for using Monel is that while it is harder—and, incidentally, harder to cut—it is also easier to bend than a hard aluminum. And it can be bent in more complex shapes and with sharper bends than aluminum without cracking or breaking.

A second example of steel versus other metals was found in making a special chair for an arthritic patient out of metal tubing. It was desired to make the first chair from aluminum tubing. To obtain the necessary strength, the tubing used would have had to be at least one inch in diameter. On the other hand, steel tubing five-eighths of an inch in diameter could be used, adding strength and providing a neater looking appearance. Since welding would also be required, steel was a necessity. One additional feature was that steel tubing is more easily bent, while aluminum tubing has a tendency to flatten if the curve exceeds a radius of about three times the diameter of the tubing. The writer was convinced, and the chairs ever since have been made from steel tubing. The problem of the finish was solved by painting it—a finish satisfactory for a chair, but not necessarily so for a hand splint.

There are many other considerations not yet described here and which will be dwelt on only lightly at this time. But it is worth mentioning that there are other properties, such as tensile and compressure strengths, sheer strength, torsion resistance, elongation, elasticity, etc. Partly from curiosity, and because such information in its condensed form might be helpful to occupational therapists, the writer asked to have a chart prepared listing some of these metals and other materials and the comparative figures of the above-mentioned factors. This has been found to be a helpful guide in selecting and checking the various materials according to the requirements of a device as set forth by its potential use and fabrication method.

One other device which will be mentioned only

briefly and to illustrate the use of materials is the functional arm brace. In this apparatus a combination of aluminum, Monel metal, cold rolled steel and spring steel is used for the metal parts, with Fiberglas for the molded parts. This combination gives strength, durability, compactness of design, cosmetic appearance and a minimum of weight. All of these requirements were noted in obtaining a satisfactory device of this type.

Before dwelling too long on metal, as though it were the only material used, some of the others at our disposal ought to be mentioned.

Fiberglas is a substance used rather frequently and it is still a controversial selection. Many people prefer *Celastec*. It is probably a matter of personal preference, and prejudice is bound to play a part; selection is sometimes made on familiarity with a medium rather than on an equal comparison. (The writer, for one, has long recognized that she does not feel herself adequate to handle *Plexiglas*. If she believed its potentials great enough to warrant it, she would feel obliged to become more experienced in its used in order to be more objective in comparisons and attitude.) To go back to a discussion of *Fiberglas*, it is well worth the effort of learning how to use it. This material is the strongest and lightest of all materials available when compared with others of the same thickness. It is cosmetic and can be molded to quite complex shapes. It also lends itself to utilization of good construction principles to obtain maximum overall strength, and it is amenable to shaping. Its greatest disadvantage lies in the method of fabrication. This is a threefold process, requiring both a negative and a positive mold. The *Fiberglas* is then molded over the positive mold. During this process and while the resin is in liquid form, some allergic reaction to the material may occur. It has been learned that generally speaking, and except for persons having an allergic reaction, if *Fiberglas* is handled properly, there should be no difficulty. Proper ventilation, heavy rubber gloves, and a restriction on time of working on the material at a stretch (approximately one half hour) are sufficient precautions. These are not difficult or expensive to observe. While it does help to have some experience, for the most part this depends on the individual. Some therapists learn to use *Fiberglas* in one lesson; others require several.

The writer has used briefly a material called *Direkt-Form*. This is a mesh woven of small aluminum wires running in one direction and covered with a cotton cloth tubing. Its advantage is that it can be shaped directly on the part to be fitted. It is then dipped into a hardening

solution or resin. If additional strength is needed, a second layer of the wire mesh is used. To provide a smooth surface and a cosmetic appearance, a light colored burlap is laminated on one or both sides. Straps can be laminated on at the same time, thus avoiding the use of rivets. While it does not lend itself to intricate shaping, changes can be made after the resin is hardened by painting it with a softener. There is a small percentage of shrinkage. Since the resin hardens fairly rapidly a splint can be finished in a relatively short period of time. It is suitable for pancake hand splints, cock-up splints and foot splints.

Aire-cast, *Royalite* and *Celastec* are other fairly commonly used materials. They will not be discussed at this time.

There is one other material which must claim brief mention. That is *nylon*. The type being experimented with is known as *Polypenco Nylon FM-101*. Its weight is approximately one-seventh that of steel. It has one of the highest elasticities of any material, for it can be bent almost double, and its permanent rustproof, corrosion-proof finish is also cosmetic.

In addition to the main materials used for fabrication of the devices, there are many types of paddings and linings, straps, and a variety of fastenings, such as buckles, D-rings, snaps and studs. To discuss them all would take too long. Only a few of the types of padding and lining will be mentioned and some of the basic principles in the use of padding will be noted.

Sponge rubber is an old standby. *Latex*, heavier, soft, but less compressible, will give a firmer padding. *Piano felt* or other varieties of felt may also be used. The disadvantages of the above are that the sponge rubber disintegrates very quickly with wear and all of them soil very easily. In their place the newer plastic foams are being used, such as *Vynlaire* or *Durocel*. *Plastisol*, one of the newest, is a good material, too. This has often been called "baby doll plastic," since it is used for that purpose. It is tough, very durable, an attractive color, and does not get sticky with heat or perspiration. It can be easily washed. To apply, the part to be covered is heated, then dipped in the *Plastisol*, stood until dripping stops, then heated again to set the *Plastisol*. It must be heated to 350 degrees, so it cannot be applied to any material that cannot be subjected to that temperature. You cannot, for instance, coat *Fiberglas*. Nor can you coat porous materials which may contain some moisture, as the expansion of air during the heating causes bubbling of the *Plastisol*.

For coverings or linings, *horsehide* is an old favorite. The new plastic material called *Nauga-*

lite can be substituted. This is a plastic laminated on a cloth background which is stretchable in one direction for fairly easy contouring. It has been known to become sticky in extremely hot, humid weather. *Moleskin adhesive* is also a good material. Its soft surface is most pleasant to many patients; in cases of arthritis, where pain and tenderness are often present, it is often preferred. And it can be scrubbed clean for a while.

To return to padding, I would like to mention one basic principle. Generally, most padding, when there are specific points of pressure, should be placed around or adjacent to the area, rather than added as cushioning directly over the spot, because this only serves to increase the pressure no matter how soft the padding. By padding around the area, the pressure is lifted from the tender spot. No padding at all is the best answer, for padding should not be necessary if a device is properly fitted. In the case of molded parts, padding should be done before the original cast is taken, to make sure there is no pressure of the material on bony prominences, scar tissue or other tender spots. An all-over layer of padding may be used to reduce the hardness of the material against the skin.

Previously, and during this discussion of materials, the use of good construction design has been mentioned. How helpful this may be will be illustrated.

In increasing strength of any device, one way is to increase the thickness. This, however, adds weight and bulk. It can be done more simply by adding a third dimension in the form of a reinforcement strip or a curved edge. Try taking a piece of paper or cardboard and bending it. It is very flexible. Now turn up two small edges and bend it again. Without adding more material you have increased its rigidity. Thus shaping, properly done, can be important. For example, the steel eye-shaped beams used in supporting ceilings are more rigid and stable than a plain square wooden plank. A second example in the use of shaping is the aluminum or steel plates used as outside construction on many of our modern buildings. Most of these sheets of metal have designs in them which are not merely for decorative purposes but are a way of reinforcing the strength of that metal sheet. While these illustrations may seem far away from the designing of splints or other adapted equipment, the basic principles can be applied with some careful thought. As a reference on this subject, an article by Eugene F. Murphy, Ph.D. entitled "Engineering Considerations in the Design of Orthopedic Appliances" may be cited.²

All this may sound as if it were being sug-

gested that occupational therapists become engineers. Far from it. But we can at least have some understanding of such needs and try to meet as many of them as we are able.

There is one other subject that the writer would have liked to include here and that is some discussion of the psychology of self-help devices, but time will not permit.

In conclusion it may be repeated that occupational therapists have a role to play in this newer phase of rehabilitation and that their role can be enhanced by utilizing the directed, specific procedures that have been described in this paper. May this be only a beginning in the contribution that we can offer to the field in this phase of treatment.

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Table No. I
EATING TECHNIQUES

A. Evaluation of biodynamics of eating motions

1. Sitting position, erect (elbows at sides of body)
Hand: flexion of fingers for grasp, opposition of thumb for grasp
Wrist: stabilization in neutral position
Forearm: pronation for picking up food, supination for putting food into mouth
Elbow: flexion of forearm from plate to mouth
Shoulder: stabilization against hyperextension in a position of slight flexion, some abduction, assists in raising hand to level of mouth
2. Sitting position, reclining
Hand: flexion of fingers for grasp, opposition of thumb for grasp
Wrist: Stabilization in neutral position
Forearm: Pronation and supination for picking up food and putting it into the mouth
Elbow: flexion of forearm from plate to mouth. Use of extensors to provide a "braking" action in final stage of flexion of arm as the hand nears the mouth
Shoulder: stabilization in a greater degree of flexion and abduction, amount depending on degree of recline
3. Supine position
Hand: flexion of fingers for grasp, opposition of thumb for grasp
Wrist: stabilization in neutral position
Forearm: pronation for picking up food, supination for putting food into mouth

Elbow: flexion in a horizontal plane from plate to mouth, extension for "braking" action

Shoulder: stabilization in a position of slight flexion. (More effort of shoulder is required in this position. Some additional active abduction and flexion may be necessary, depending on position of plate. This is usually placed on patient's chest or on tray placed directly over patient. The tray and stand, however, usually raise the plate too high, requiring more effort and adding visual problem.)

4. Prone position

Hand: flexion of fingers for grasp, opposition of thumb for grasp

Wrist: stabilization in neutral position

Forearm: pronation for picking up food, supination for putting food into mouth

Elbow: flexion for plate to mouth

Shoulder: some flexion and extension or some internal and external rotation

NOTE: studies made from clinical analysis only. It is felt that an electromyographic study would prove extremely helpful.

B. Methods and devices used

Hand: Utensil interlaced in fingers and placed over thumb; some shaping of utensil may be necessary

Addition of tape to prevent slipping of utensil

Built-up handle of sponge, wood, or other material

Grip-shaped handles

Wooden handle with vertical and horizontal dowels provides some assistance and positions fingers for correct holding

Ringed utensil holder to provide minimal assistance for grasp

Functional utensil holder aids grasp and helps maintain opposition

Plastic and metal holder provides almost complete assistance but allows and encourages some grasp

Warm Springs opponens splint (with C-bar or swivel) assists grasp.

Leather utensil holder gives complete assistance and requires no motion of the hand

Leather utensil holder with metal insert and strap used when contractures or spasm make it difficult to put on the standard model

Robin-Aid Handi-Hook, a dynamic device substituting for grasp; operated by means of shoulder harness and cable

Bodenstein hand (or other model), a dynamic splint which incorporates the fingers and provides pinch grasp

Wrist: Flexible leather wrist support (dorsal) with or without leather utensil pocket; supports flail wrist drop but does not restrict motion if any is present

Warm Springs opponens with wrist extension and other similar models

Cock-up splint (palmar), with or without leather utensil pocket, generally used for a wrist drop due to tendency to contractures or when spasticity or spasm is present

Gonzales hand splints with free wrist hinge or Klenzac joint

Forearm: Supination and pronation

1) If thumb extension is present, place utensil over thumb to aid in loss of supination

2) Swivel spoon replaces motion

Flexion

1) Resting forearm on table or lapboard

2) Slight lift, given by therapist holding sleeve cuff

3) Rocker arm support or wheel chair functional arm support (I.P.M.R. or Warm Springs model)

4) Feeder attachment to slings uses trunk muscles and gravity

5) Overhead slings with built-up lapboard or table. Feeding is done in completely horizontal motion. Eliminates force of gravity

6) Long-handled utensil to replace loss of motion due to stiffness or fusion. Regular silverware may be replaced by light-weight aluminum when grasp is limited

Extension (braking action)

1) Sponge roll strapped to inner aspect of upper arm at elbow joint

Shoulder:

1) Pillow support behind arm (used in bed or wheel chair)

2) Functional arm brace with hyperextension stop used when patient is ambulatory

3) Functional ball bearing swivel arm support with elbow rest. Attached to wheel chair or table

4) Overhead slings

C. Other equipment

Dishes:

Towel or wet cloth under plate

Suction cup bowl

Double suction cup

Plate guard

Scoop dishes

Drinking utensils:

Long straw and holder

Adapted cup holder

Kant-Spill training cup

Tommie Tippie cup

One-handed cutting:

Combination knife and fork

Knifork

Scissor knife-fork combination

Tables and lapboards:

Overbed tables

Snack trays with legs

Cut-out lapboards

Cut-out lapboards with holes for dishes

High lapboards

Bed positioning:

Pillows

Backrests

Gatch—manually operated—electrically operated

D. Types of food most suitable for practice:

Applesauce

Puddings

Mashed potatoes

Use of Plasticene for practice in one-handed cutting

Table No. II
WRITING TECHNIQUES

A. Evaluation of the biodynamics of the motion of writing
Commonly used method

Palmer Method

	<i>Motions</i>	<i>Objectives</i>	<i>Motions</i>	<i>Objectives</i>
<i>Hand</i>	Opposition of thumb Flexion of first 2 fingers Flexion and extension of the middle phalanges joints and/or	Provides grasp Moves pencil	Opposition of thumb	Provides Grasp
<i>Wrist</i>	Slight flexion and extension or Stabilization in neutral or slight cock-up position	Moves pencil Provides positioning	Stabilization in neutral or slight cock-up position	Provides positioning of hand
<i>Forearm</i>	Stabilization in approximate midposition	Provides positioning	Stabilization in approx. midposition	Provides positioning
<i>Elbow</i>	Synergistic action of —flexors —extensors Slight flexion and extension with	Lifts weight of arm from writing surface Provides pressure during writing Moves hand across paper	Stabilization in position of flexion with Slight flexion from approx. 90° to 100°	Provides positioning Moves hand across the paper
<i>Shoulder</i>	Slight internal and external rotation Stabilization in position of slight flexion and abduction Minimal synergistic action of shoulder girdle muscles	Provides position and Minimal motion and pressure	Slight motion in all directions	Provides writing motion and pressure of pencil on paper

NOTE: Motions will vary according to individual methods of writing. In using the left hand, for instance, position of the wrist may vary from slight extension to extreme flexion. Position of patient and height of writing surface must also be considered for their effect.

IMPORTANT: This is an analysis done only from clinical observation and with limited testing. It was intended to be used as an illustration of one method of evaluating an activity. It is felt that an electromyographic study would prove extremely helpful.

B. Preferred positioning³

Body: Erect, leaning slightly forward

Arms: Elbows fairly close to the body, slightly off the front edge of the desk, weight supported on the belly of the forearm.

Hands: Supported by the heel of the hand and tips of the last two fingers or by the sides of the last two fingers. One hand holds the paper, the other moves it up after each line.

Paper: Use one sheet at a time. Place so that a line drawn from lower left to upper right is perpendicular to the body, for the right handed, opposite for the left-handed.

Pencil: Held by thumb and first two fingers, top part of pencil should rest next to the metacarpal phalangeal joint. Pencil should be held loosely.

C. Methods and devices used

Grasp:

- (1) soft lead pencil
- (2) fountain pen or certain types of ball point pen
- (3) built-up pencil, diameter increased
- (4) spring clip holder

- (5) leather holding device
- (6) holder with finger rings
- (7) pencil holder with leather utensil holder
- (8) Fiberglas holder with corset stays for finger flexion
- (9) Fiberglas holder over fingers
- (10) Robins-Aid Handi-Hook
- (11) Lionel hand
- (12) Bodenstein hand

Wrist:

- (1) leather and spring steel support, flexible
- (2) anterior cock-up rigid
- (3) posterior wrist support, rigid (Warm Springs type)

Arm:

- (1) powder to reduce friction
- (2) ball caster support
- (3) sling, overhead

D. Other equipment

- (1) magnetic board for holding paper
- (2) lapboard for wheel chair
- (3) trestle lapboard for wheel chair

Session On Graduate Study

APPLICATION OF PROGRESSIVE RESISTIVE EXERCISE TO OCCUPATIONAL THERAPY¹

RUTH HULTKRANS, O.T.R.²

ANICE SANDEEN, O.T.R.³

Occupational therapy has always claimed as one of its aims the development or improvement of muscle strength; however, little has been done to adapt crafts for heavy resistance, or to devise methods of exercise which would increase resistance as tolerated and permit satisfactory execution of the craft activity. This study was performed to devise a progressive resistance exercise procedure which could be used satisfactorily in a clinical situation and which would increase strength in specific muscle groups without causing undue pain or soreness. This procedure was then tested on a number of subjects and actual increase in strength gained as the result of the exercise was determined.

The fundamental concept of progressive resistance exercise is the overload principle which states that increase in muscle strength can be achieved only by contracting against a degree of resistance that calls forth the maximum effort. Therefore as muscular strength increases the resistance against which the muscle works becomes correspondingly greater.¹ Motions are carried through the fullest range of motion possible for the individual and are best performed at moderate speed. The application of progressive resistance exercise to occupational therapy raises many questions. Can measured amounts of resistance be applied practically to occupational therapy equipment? Can the positioning of the patient and the motions he uses in performing the activity be effectively controlled? Will the activity still be satisfying under the above conditions? Will a significant increase in strength be achieved? This study was performed in an attempt to answer these questions.

APPARATUS AND PROCEDURE

In this study the principles of progressive resistive exercise were applied to weaving on a floor loom. The loom was adapted with a shoulder depressor unit developed by Cornelius A. Kooiman, O.T.R., and Frederick J. Kottke, M.D. Through a system of ropes and pulleys the adaptation² permits the subject to move the beater of the loom by contracting the shoulder depressor muscles. (Figure 1.) The shoulder depressor unit lends itself to this study because resistance can be quantitatively applied and activity involves gross bilateral movement of a large muscle group.

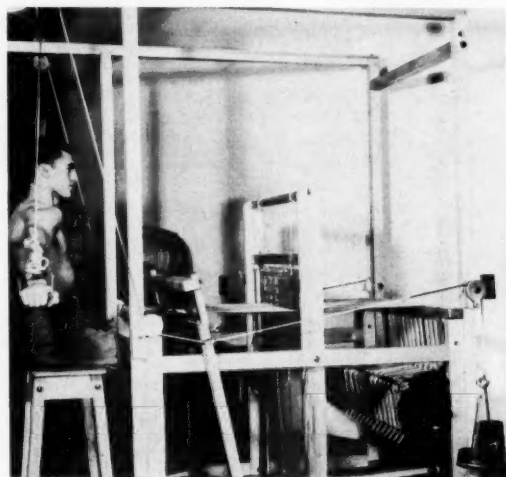


Figure 1. The shoulder depressor adaptation of the floor loom which permits the weighted beater to be moved by contracting the shoulder depressor muscles.

The ability of this adaptation to develop muscular strength is of particular importance to occupational therapy and rehabilitation because hypertrophy of the shoulder depressors is essential in preparation for crutch walking.

During activity the patient is seated on a conventional weaving bench with feet supported. Activity is begun with the arms abducted to approximately 85° in a plane slightly posterior to the mid-line of the trunk. This is near the optimal position since the greatest power of the shoulder muscles is exhibited when the arm is at right angles to the shoulder.³ The elbows are extended and the hands grasp the hand grips. The subject pulls down on the hand grips bilaterally, an action which brings the weighted beater forward and beats the weft. The prime movers affecting this motion are the latissimus dorsi, pectoralis major and minor, and the lower trapezius. When the humerus is fixed these muscles

1. Based on a study by the authors while students and conducted under the supervision of Dr. Frederic J. Kottke, Chief, Department of Physical Medicine and Rehabilitation, University of Minnesota Medical School, and Marian Eliason, O.T.R., occupational therapy instructor.
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3. Occupational therapist, Highland View Hospital, Cleveland, Ohio.

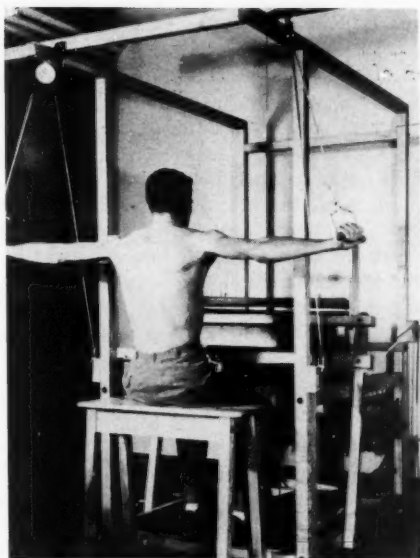


Figure II. The starting position of the subject in beating the loom.

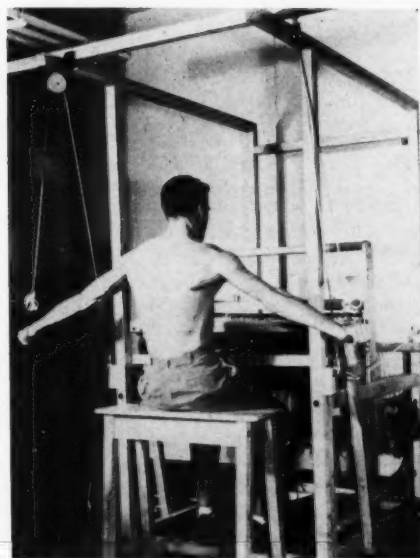


Figure III. The finishing position of the subject in beating the loom.

move the trunk, as is the case in crutch walking. Essential also are the muscles which fixate the scapula, and the flexors and extensors of the elbow and wrist for the necessary stabilization of these joints. (Figures 2 and 3.)

The exercise procedure used in this study is a variation of the Oxford technique as advocated by M. Dena Gardiner. This procedure after a brief warm-up applies the maximum resistance immediately, and decreases the resistance after each subsequent group of repetitions in accordance with the fatigue curve. This is in contrast to the well known DeLorme procedure which applies maximum resistance after progressively increasing the resistance. The exercise procedure used here is based on the 10 R.M. (10 repetition maximum) which refers to the amount of weight which the subject is able to lift ten times in succession. Following is the exercise procedure:

- 9 repetitions of 50% of 10 R.M.
- 1-2 minutes rest
- 15 repetitions of 10 R.M.
- 1-2 minutes rest
- 30 repetitions of 75% of 10 R.M.

Each pick was beaten three times, thus there were a total of 18 picks woven during a single exercise period. The beating of these three picks took approximately five seconds, while the process of putting the shuttle through took an average of seven seconds. Therefore, in performing the activity, the subjects were overcoming resistance, at the most, 40% of the time. In the

actual weaving of a project, this percentage would be much less, possibly only 10-20%, considering the time spent in keeping the edges straight, examining work, unwinding the shuttle, and carrying out color and design changes. This would be somewhat lower for subjects who were just learning to weave.

The exercise was done at the same time daily Monday through Thursday. The 10 R.M. which served as the basis for the following week's exercise was determined on Friday. Exercise to establish the 10 R.M. was determined by DeLorme's method and was performed on the shoulder depressor adaptation. Exercise was always administered by the same therapist. Subjects were five occupational therapy students, therapists and aides ranging in age from 22 to 45 years. One of the subjects was forced to discontinue exercise after four weeks, because it was felt by the medical staff that a previous back condition was being aggravated by the exercise. The remainder of the subjects were able to complete the study which lasted six weeks. The average range of motion was from 85° of abduction to 119°, an excursion of 34°. This could be altered for individual patients by raising or lowering the hand grips, but these were kept stationary in this study as a means of control. The weaving was kept at approximately the same distance from the breast beam at all times, to assure uniform range of motion.

Compensatory motions which had to be avoided included: (1) flexion of the elbow and use of the biceps to complete the motion, although

slight flexion at the elbow is necessary to protect the elbow joint, (2) tendency to elevate and horizontally adduct the shoulder and bring the arm into forward flexion, and (3) flexion of the trunk to complete the last few degrees of motion.

RESULTS

As might be expected the rate of increase and amount of increase varied with individual subjects. The largest gains were noted at the completion of the first week's exercise with a somewhat reduced but still significant gain after the second week. The rate of increase leveled off and remained constant during the remainder of the study.

Most of the subjects complained of tenderness in the area of the upper trapezius during the initial phases of the exercise. Later as the weight increased there was pain and soreness in the stabilizer muscles of the elbow and within the structure of the joint, persistent enough to interfere with completion of the exercise in a few cases. In all cases this tenderness was present to a greater extent on the right elbow and shoulder. Exercises seemed slightly more difficult on Mondays after two days of rest, but this varied in the same subject from time to time and with different subjects. Occasionally some of the subjects were unable to beat the weaving satisfactorily, a factor which might affect the treatment of a patient who is interested in turning out a nice-looking project. In most cases, however, the weaving was beaten satisfactorily.

This exercise procedure seems applicable to a clinical situation, although it requires close supervision of the therapist regarding the changing of weights and the determination of fatigue. A variation of the procedure to allow for more actual weaving could be made, or if scheduling permits, exercise might be done twice a day. Emphasis must be placed on the fact that to be effective and safe for the patient, progressive resistance exercise must be performed properly and accurately which requires additional effort on the part of the therapist. However, when such fundamental principles are conscientiously applied to the performance of occupational therapy activities, a more observable concrete basis is apparent in the use of the modalities. This will result in increased professional prestige, a quicker and more positive response from the allied professions, as well as from the patient who, most important of all, will receive more effective treatment.

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Session On Geriatrics

THE SOCIAL CARE OF OLDER PERSONS IN NURSING HOMES

JEROME KAPLAN*

In our time physicians estimate that as many as half, or even more, of their patients have physical ailments that are wholly or in part due to mental or emotional difficulties. With the general aging of the population, the incidence of such afflictions will probably be even greater. We know that an illness due to emotional difficulties is no less real and disabling to the patient than one with an organic basis, but the economic waste in attempting to treat psychological problems by purely organic methods is a matter of growing concern to the medical profession and others working in the fields of gerontology and chronic illness.

Then, too, with the growth of knowledge in the physical sciences and the evolution of psychogenic concepts, present day hospital care has

become more complex than ever before. Standards are steadily increasing while more hospital services are being consumed. The aged person not only needs more hospital and nursing care, but stays longer in the hospital. Again, while 10 per cent of the population is aged 65 and over, they consume more than 20 per cent of hospital care services. In turn, these services may be provided through a variety of living situations. Today, about three per cent of those over 65 live in various institutions for a total of 385,000.

This is indeed a small number in terms of the total aged population, for people dislike giving up their independence of living, a social stigma

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is often attached to these places of living, too often there are harsh, restrictive and unnecessary administrative policies and regulations, and the cost of congregate living centers is steadily climbing. Even so, the nursing home has become a most vital cog in the whole constellation of services to the old.

Social and recreational functions of a nursing home. In addition to the important functions of providing appetizing food, adequate shelter and competent medical care, the present day nursing home must be aware of the human contacts within its walls.

A nursing home may be described in many ways. For our purposes it may be looked upon as a residence which houses a substantial number of older people who are receiving care as a group. It has emerged—although not universally recognized nor practiced as such—as a social agency with positive, desirable standards of care. It is designed to serve the chronically ill and in a few instances the mentally confused. It is a medical care facility that consciously includes social, recreational and therapeutic services, which are the same as for any person at any age, but they have attained greater importance for the older age group as their opportunities for social communication have diminished. In addition, those residing in nursing homes are less well than others living outside the home and they do not come from an homogeneous group. These older adults need opportunities for:

Companionship

Fun

A sense of belonging

Developing new interests and skills

Retaining or renewing old skills

Stimulating the desire to learn

Continuation of curiosity

Adjusting to a changing environment

Maintenance or development of status

Feelings of being needed and of use

That nursing homes, and homes for the aged, have failed in this task in the past, is borne out by statements by noted physicians that these homes have actually facilitated senility.

Group activity has been steadily increasing in quantity and quality for the aged who are well. Those aged who are chronically ill or senile or mentally disturbed have not been so fortunate in the development of social and recreational opportunities that could maintain their mental well-being or improve their adjustment. The nursing home, by its evolution as one of society's institutions, must be concerned with the senescent and the senile.

The nursing home is composed of a group of

people, but a group is a social system and does not maintain itself automatically. Perhaps we should examine more closely the kind of group that exists in most nursing homes by looking at its people. It is then that we can gear the social program of the nursing home to the group as a whole and to its individual patients.

Older people face a double difficulty: physiologic changes, and social and psychological changes. The feeling of inferiority and insecurity due to decrease in physical strength and energy is itself a most tremendous burden. The way in which these changes, physical and intellectual, are accepted by the individual is of extreme importance. The more severe the emotional maladjustment and the lack of acceptance of aging, the greater the fabrication and distortion. This is one of the results of completely denying any physiological or intellectual decline.

Another is the group that takes passive attitudes and makes no effort in any direction. Perhaps they do not want to take the effort to remember things going on around them as a means of relieving them of their troubles.

Numerous role changes occur in old age, many being social in origin, such as the establishment of a "legal old age" for various types of accrued benefits and services, and others resulting from chronic ailments like the heart diseases, arteriosclerosis, arthritis. Many old people manage by themselves to reorganize their lives by redefining their needs or by finding new satisfactions through new roles and activities. We know that strong motivation can compensate for loss of ability. The purpose of any social and recreational program should be to promote and stimulate opportunities for continued happiness and usefulness, or to redevelop these opportunities for renewed satisfactions commensurate with biological changes for as long as the patient is in the nursing home and for as long as the patient lives.

Any social or recreational program must take into account the original personality patterns of the patients. Many of the characteristics of the senile are related to some childhood concepts. These, in turn, have been tentatively correlated in a positive manner with a decline in mental ability which appears to accompany senility. Yet, senility is not childhood all over again; for the aged senile does have a reservoir of lifetime experiences which is not found in the child. The revival of latent childhood interests might be encouraged and transformed through positive motivation.

When losses are permanent, compensations and mitigations must be found; if the losses are reversible, an appropriate rehabilitative program

must be undertaken. Yet we must be exceptionally astute, for both are in flux as new research develops and bold advances are created. For example, it was only a few short years ago that the senile were left to vegetate in complete hopelessness. Today, we recognize the possibility of the multiplicity of mental changes brought about by biological change and emotional stresses.

The usual nursing home with few rigid entrance restrictions is composed of a patients' group that functions at a lower level of efficiency than that of the average adult group. Mental productivity, reasoning ability, imaginative capacity and motivation can be expected to be reduced. Thinking may be rigid, interests limited and emotional life shallow. There will be marked inability to form satisfactory social relationships. The group as a whole will show varying degrees of adjustment, with neurotic and/or psychotic trends in evidence, and indicated personality aberrations perhaps due to organic change.

Within the group some of the patients will show healthy, well-integrated personalities and capacity for high performance levels. In general, the women might be more productive, more intellectually responsive and flexible, and more sensitive to the environment than men; but they also may be more unstable emotionally. Although there may be marked differences in some areas of operation between their aged counterparts residing outside the nursing home as well as those who are much younger, there may be more similarity than differences in the age range of the aged patients in the nursing home.

We know that individual emotional reactions are dependent in part upon the innate personality of the individual, but they are also dependent upon the situations which produce them—the environment.

The nursing home patient is exposed to environmental stresses that usually demand adjustments to:

- Some degree of invalidism
- Death of spouse
- Loss of employment and reduced income
- Narrowing of social contacts
- Loss of previous useful activity
- New living arrangements
- Strange people

The individual's reaction to the disruption of his habit patterns will depend, of course, upon his physical, emotional and intellectual state. In any social group program it is important to know to what extent the individual has deteriorated socially.

Four factors are usually associated, to various degrees depending upon the individual, with positive adjustment and contentment in old age:

1. Good health and freedom from physical liabilities.
2. Pleasant social and emotional relations with friends and family.
3. Possession of hobbies and outside interests as well as useful work.
4. The quiet, privacy and independence of action provided by living in their own homes, or the home substitute.

Consequently, the nursing home must assist its patients to find or retain a feeling of usefulness by maintaining or developing skills and establishing varied interests and healthy social relationships. This recreational service to the patient should be concerned with his physiologic, psychologic and social well being.

A nursing home social program can facilitate individual motivation. The 78-year-old woman who prayed every night that she would not be alive the next morning now has actively organized the neighborhood to regularly visit the nursing home where she had been a patient. It was through the encouragement of her social worker, recreation leader and fellow patients that she felt she could live again in spite of a circulatory ailment.

A completely helpless and bedridden 82-year-old woman, who had a history of a multiplicity of illnesses including a cerebral vascular accident, was able to become completely independent within three months after admission to a nursing home. The combined efforts of the rehabilitation team were geared to motivating her through the social program of the nursing home.

Even the senile can benefit from a social group program which is based on around-the-clock supervision, occupational therapy and the recognition of the need for recreational activities. The senile aged respond to a repetitive social program with no competition. Since music and rhythm are related to early life experiences, the senile adult may well respond to stimuli from the past. Although the program is planned for the people, the basic concepts of recreation and social group work still prevail. In all respects the person is allowed to function on his own level, commensurate with his physical, mental and emotional capacity.

While we have briefly discussed the patient in the nursing home itself, we should not forget the benefits which can accrue to those patients able to participate in group life outside the home. In addition to special interest organizations, the golden age club and camp have much to offer.

The senior citizen camp is not as popular, yet, as the club, even though organized camping for the older adult is not necessarily a new phenomenon, for as far back as 1916 the Community Service Society of New York (as it is now

called) planned vacations for older people in an out-of-door group environment. Yet, the Society's idea seemed to be ahead of its time and golden age camping appeared to fall into disuse even before it became popular. It is only in recent years that the golden age camp has begun to appear upon the camping scene in ever increasing numbers. Refinement of techniques, methods and program are now in the developmental stage.

The new precept assumes that the wishes and interests of all people vary depending upon their general age range and experiences, their formal and continuous, informal education which in-

cludes their cultural and environmental background, and their physical and mental capacities. It is important to keep in mind, however, that age per se is not the dominant factor, for the aged that are considered handicapped can continue to live within their capacities. Physiologic aging must be differentiated from the pathology of degeneration which is not inevitable and has little to do with age and growth.

Throughout all efforts we must have before us a positive approach of ability, not disability. The 87-year-old gentleman with a cardiac condition, who outdanced me one night, is positive proof of the new aged that we must serve.

Session On Therapeutic Recreation

THE IMPORTANCE OF RECREATION

JOAN M. DONIGER, O.T.R.*

There is a lot of disagreement among us when it comes to saying what recreation is and what constitutes a recreation program and how such a program differs from occupational therapy. But let us leave this area of classification and disagreement until later and spend some time talking about recreation as if we all understood it in the same way.

Everyone knows that patients are better off occupied than idle, and that recreation, along with other activity programs, fills important needs in a hospital. We know that a good recreation program can go far to counteract the terrible feelings of isolation, loneliness and boredom most people experience when they are hospitalized. The field of recreation is wide and flexible enough so that its activities can provide for many needs, social or solitary, active or sedentary, relaxing or stimulating, formal or informal, rigid or unstructured. No one disputes this although it has not been until fairly recently that all the values of recreation as therapy were recognized.

There are values which a sound recreation program is more likely to provide than other therapies. That is the opportunity for group involvement and a development of community feeling on the part of the patients. Aside from missing their work, family and friends, hospitalized patients miss identification with community, the feeling of taking an active part in life. Activities like hospital newspapers, ward parties and game nights and the preparations required of patients for their success are recognized useful hospital activities.

The techniques which make recreation valuable are also familiar to occupational therapists:

1. To have patients themselves take responsibility for their own programs as much as possible.
2. To deal with patients as individuals and attempt to suit programs to them.
3. To stress the doing rather than the finished performance.
4. To avoid pressuring some activities, or judging others from some arbitrary standards of worthiness.

Speaking of worthiness, there is another advantage that a recreation program has. It comes from the very common every-dayness of some of the activities. We have all heard that it is often desirable in working with patients to start on their level and see them as and where they are. The most usual and unsophisticated forms of recreation, like cards and pool, offer the best opportunities for reaching patients.

Albeit, if recreation is as valuable as it is, what has caused the delay in recognition of its potential, and why do barriers still remain? On the whole there has been less resistance to acknowledging the values of recreation to the mentally than the physically sick patients. The concept of therapy directed towards the whole patient rather than a specific limb or organ may be responsible for such acceptance. Then increasing interest in psychosomatic medicine has brought about wider appreciation of treatment of all patients as people rather than as bearers of symptoms. But it is not necessary to ascribe part or all of a patient's illness to mental or emotional difficulties in order to accept the value of recreation. Activities directed towards restoring mental

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health are not, after all, very different from those designed to maintain health.

In review, I have said that the values of recreation in maintaining and restoring mental health are widely known, I have tried to show some of the particular values and the ways that they may be achieved. I have said that in spite of the common knowledge of these values, there have been many barriers to accepting recreation as treatment. It is impossible for me to talk to you further without trying to classify common ways of trying to differentiate between occupational therapy and recreational therapy. This is a real problem, and I will attempt only to describe this problem, rather than supply any answer.

The facts are that sometimes we, and the hospitals in which we work, ignore recreation; sometimes we appear to be in competition with recreation; sometimes we leave broad unexplored areas of work between ourselves and recreation so as to avoid all semblance of competition; and sometimes we even succeed in working harmoniously with recreation people.

There are reasons for each of these situations, reasons which stem from the way we classify recreational therapy. One simple and safe way to define it is by geography—recreation becomes any activity which takes place in the gym, on the playing field, or in the social hall. This sounds like a safe and simple definition because everyone knows that the person in charge of the shop is an occupational therapist and the person in the gym is a recreational therapist. Minor difficulties or friction arise over marginal activities—the party is run by the recreational therapist, the cookies and posters for it are made in occupational therapy. Then if you have an occupational therapist with a physical education background preference, and a recreational therapist with a craft background and preference, do you place these people by aptitude or college degree?

Another distinction sometimes is made on the basis of whether some concrete end product is associated with the activity. In this definition recreational therapy includes activities which do not have an end product. When patients swim, dance, walk, read, listen, look or perform they are undergoing recreational therapy. When they make something, a belt, picture, table, cake, they are in occupational therapy. Again this definition looks mutually exclusive, but we find areas of overlap.

A similar kind of distinction is even more difficult to follow. This is calling recreational therapy any activity undertaken primarily for enjoyment or diversion, and classifying occupational therapy as all other activities. Sometimes

we hear that occupational therapy is prescribed, recreational therapy is "self-chosen." And what does prescribed mean? Is it that piece of paper with a doctor's signature on it? Is it the conversations between therapists and doctors in the hallway, dining room and meetings? Are recreation people unwilling to take advantage of this kind of collaboration? Which department is in charge of the golf clubs for the patients who play golf alternately (or even at the same time) for enjoyment, treatment of the shoulder or various psychological reasons. Since the distinction between diversional and occupational is highly subjective anyway, this definition is not very useful. This definition has led to some fancy upstaging on our part. For if recreation is seen as merely diversion, it becomes demeaning to work on it or to be associated as equals with those who do. Any social director or volunteer hospital hostess could by this definition handle a recreation program.

The emphasis should be on therapy rather than on the particular activity. If we as occupational therapists were to ask ourselves why we are that and not craft teachers, the answer is easy. The activity is only half, and often less than half the story. The rest is the common second word of the term, "therapy." And the therapist is trained to observe and deal with medical problems. The same insights into the significance and impact of a particular activity on a patient is required of all therapies.

If you have now concluded that there is no fundamental philosophical difference between occupational therapy and recreation therapy, you are now faced with some even greater difficulties. How do you plan with occupational therapists and recreational therapists who seem to be defining their profession as the use of those activities that they learn in school, or are somehow limited in the skills they have or can have at their disposal. Undeniably group leaders usually do need to be skill specialists in the activities they are to lead. So in a practical sense we sometimes must continue some kind of separation.

I have discussed only a few ways that I have heard occupational therapy and recreational therapy differentiated in the past—by location, by end product, by enjoyment versus treatment, by skills—and have also suggested that perhaps they cannot often be separated after all. There are many other ways to go at this problem, but you can readily see that we do have a problem. It may be worth our while in the future when we talk about the contribution of recreational therapy to patient programs to reach some agreement on what we mean when we say "recreational therapy" in the first place.

RECREATIONAL THERAPY

Its Relationship to a Milieu Therapy Program

JAMES G. STACHOWIAK, O.T.R.*

Within recent years the use of recreation as an adjunctive therapy in the treatment of psychiatric patients appears to have become a widespread and accepted phenomenon. Too often, however, the therapeutic benefits of recreational therapy are measured merely in terms of keeping as many people active as possible, often without regard for the kind of activity or the individual patient's need.

Generally speaking, there is a greater need for recreative play and activity today than there was thirty or forty years ago. The increasing technological advances in industry have tended to minimize the personal gratification one might expect in his work, and also, have cut down on the amount of interpersonal contact within the work situation, as may be exemplified by the automat, supermarket, assembly line and so on. Concurrently, there has been a great increase in the amount of leisure time at our disposal during the past few decades. Since most jobs today provide a limited opportunity for expression of aggressiveness or creativeness, the great majority must seek to satisfy these creative and aggressive needs through leisure time activities. The American Psychiatric Association has recognized the relationship between mental health and adequate utilization of leisure time, and for the past several years has had a standing committee on leisure time activities. In general, we may state at least three common psychological needs that can be met by participating in various recreative activities.²

1. Games and activities which provide the individual with the opportunity to compete or win serve as a socially acceptable outlet for the instinctive aggressive drive.
2. Recreation which provides an opportunity for creative experience.
3. Activities like watching a movie or a ball game, listening to music, or reading a book, which satisfies another important need, affording relaxation and the opportunity for vicarious participation.

Many psychiatric patients have never learned how to play. It should be one of our aims to provide them with hobbies and activities to take with them when they leave the hospital. Interests developed within the hospital often play an important role in helping the patient to remain well and adjusted when he returns home. Thus, it is felt that recreative activity can serve as a

preventive of mental ill health. It should, of course, be emphasized that these hobbies, sports, and activities are not curative in themselves, but rather, serve as outlets for the need of expressing the aggressiveness and creativity in the individual in a socially acceptable form.

What is it that makes recreational therapy out of lifting weights, or playing a game of chess, or participating as a member of a baseball or basketball team? I should like to emphasize that in a milieu therapy program the phrase "treatment aims" refers to the specific and individual, unconscious as well as conscious, needs of the individual patient. These conscious and unconscious individual needs of the patient are met in recreational therapy by manipulating the environment, and by establishing and maintaining therapeutic relationships between the recreational therapist and the patients. It is the recreational therapist, through his knowledge of the treatment aims and the techniques involved in the various sports and activities, who structures the activity so as to produce a therapeutic experience for the patient. In a milieu therapy program, activities are chosen for their specific therapeutic value for the individual patient. More important than the activity is the emotional atmosphere in which it is carried on, and the relationship established between the patient and the therapist guiding the activity.³ We have reason to believe that the manner in which we say things and the atmosphere created by our attitudes are really more important than what we say and what we do.

An activity may remain the same or change only slightly from patient to patient. The way it is used, however, and the purpose it is made to serve may vary considerably.⁴ Consider the game of tennis. Depending on the atmosphere the recreational therapist creates, this activity can be an outlet for the patient's aggressive feelings; a gratifying experience for a patient who is learning a new skill; a sport to be practiced and perfected by the compulsive person; an experience in adapting oneself to authority and following prescribed rules for an impulsive anti-social person, and so on.

Some patients need to be praised for achievements and admonished for lack of them. Others need to be praised for achievement while noth-

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ing is said about their lack of it. And for some, achievement is taken for granted and only the lack of it mentioned. "In each instance the individual needs of the individual patient determine what kind of atmosphere should be created."⁵

Let us now consider some of the management devices,⁶ and ways in which they be carried out in recreational therapy.

Devices to Correct Disturbances in the Aggressive Drive¹¹

1. Encouraging direct verbal expression of conscious hostility.

a. This device is intended for those patients whose inhibitions prevent them from retaliating appropriately or protecting themselves adequately. Seclusiveness, inappropriate expression of hostility toward inappropriate objects, or depression may result. Often their behavior can be described as passively aggressive—the patient may give verbal or passive approval to a suggestion, request, or an idea, but grumble to himself, and respond inadequately or not at all. The management device is aimed at helping the patient to "get mad" or "argue it out."

Recreational activities which allow hitting, punching or driving are especially applicable with this device. Also, beating someone in social competition or in competitive activity is a sublimated outlet for hostility. Of course, the patient must be able to tolerate competition before being assigned to such activities. The patient may identify the punching bag or the golf balls with persons in his fantasies, and respond toward these objects with varying amounts of energy, depending on the intensity of his feelings toward those persons. For example, a patient may assign names to golf balls, corresponding to people toward whom he harbors resentment or hostility. A great deal of tension is relieved through driving these balls out 200 yards on the driving range. Similarly, a patient may draw a likeness of a hated parent on the punching bag, and "work off" his aggression toward the parent in this manner. These experiences in recreational therapy are structured to allow the patient to "blow off his steam," or verbalize his thoughts without restricting censorship.

2. Encouraging relief from a conscious sense of guilt.

a. This approach is intended to meet the need of those patients whose hostility is turned upon themselves in the form of depression. The conscious attitude is usually one of sinfulness, unworthiness, dejection, and self-depreciation, but paradoxically, these patients are extremely narcissistic. They do not, therefore, make any at-

tempt to neutralize or undo their "sinfulness" or "unworthiness." Our objective is to simultaneously permit externalization of hostility and neutralization of the sense of guilt.

In general, these patients should not be given a "good time." They feel they do not deserve pleasure, and therefore, it would only increase their feelings of guilt and depression. Recreational therapy should be prescribed primarily for exercise or as a task to be accomplished—perhaps cleaning or sweeping the gymnasium, washing windows, or rolling the tennis court. Because of the extreme narcissism of these patients, it is important for the therapist to be aware that they may be gaining gratification from the most menial tasks. A kind, but firm, matter-of-fact attitude on the part of the therapist is indicated, and will aid in preventing the patient from obtaining more than a minimum amount of gratification.

Devices to Correct Disturbance in the Erotic Drive⁷

1. Encouraging the patient to "earn love."

a. There are many patients whose chief difficulties seem to center around their need for love. It is assumed that these patients show unhealthy reactions because they are thwarted in the amount of love they receive. The situation may be real or fancied but, in general, the reaction occurs because they did receive love for a time, and were subsequently frustrated.

On admission to the hospital some patients are sufficiently intact in their psychological lives to be able to exert some effort to gain approval, and thus are able to earn love rather than having it given to them "unsolicited." Every possible method should be used to provide the patient with opportunities to earn approval, gain praise, assume responsibility, and thus become a contributor to society again.

The patient can earn love through recreational and social activities affording him an opportunity to help others. He can earn love from other patients by assuming responsibility for group activities, or helping to plan or prepare for group activities. The patient may carry out assigned tasks for the recreational therapist, e.g., repairing equipment, typing programs, helping to "line" the tennis courts, and so on, and the therapist must always follow through with expressions of praise. These projects are initially "short-term," so that the patient can receive praise quickly for his accomplishments. As the patient improves, however, his assignment should become progressively more difficult, so that greater achievement is required to earn love.

2. Encouraging socially acceptable narcissistic gratification.

a. When an individual's investment of love in himself takes an asocial form, e.g., seclusiveness, unsociableness, withdrawal of interest from the world; or an antisocial form, e.g., delusions of grandiosity or persecution, the management device is to supply socially acceptable forms of narcissistic gratification.

Narcissistic gratification can be obtained in recreation in many ways—acting in a play, performing as a singer, dancer, or musician for a party, presenting a lecture, participating in games and sports in which the patient can excel, and so on. These patients need to be encouraged to accept responsibilities, praised for their accomplishments, and rewarded by special interest from the therapist. In general, individual activities, such as interpretive dancing, dramatics, and writing for the hospital newspaper offer the most opportunity for narcissistic gratification.

You have perhaps noticed that in the preceding discussion, no emphasis was placed on diagnostic labels. This is in keeping with the philosophy of a milieu program based on psychoanalytic principles—that is, treating the patient instead of the disease. The psychiatrist must learn a great deal about his patient—how he lives, loves, hates, and yes, how he plays and his motives for playing. Each patient needs to be understood in order to provide a therapeutic program suitable to him.

The important element of resocialization is not overlooked in this individualized approach—rather it is viewed as a continuous process which is graded according to the patient's tolerance for group participation and his specific needs. The average psychiatric patient, during his illness, feels uncomfortable with other people, especially when first admitted to a hospital for treatment. This process of resocialization is carried on in recreational therapy as follows:⁸

1. At first, the patient may be assigned to spend individual time with a recreational therapist. Their activity may consist of playing cards or table games in the hospital, or engaging in some sport, such as golf or tennis, or walking around the grounds, depending upon the physician's evaluation of the patient's illness. One advantage of recreation with an individual therapist is that the patient's attention may be gained more easily. To place him in a group immediately may give him too little attention, and allow him to dwell on his symptoms or remain in a world of phantasy. It also provides the patient with the opportunity of becoming friendly with another member of the staff in addition to his doctor.

2. As the patient begins to feel more comfortable in the hospital environment, he may be assigned to a small group activity, involving three or four patients, and one therapist, e.g., golf, tennis, or a bridge group. These groups are small enough so that the therapist in charge

can relate himself effectively to each member in the group.

3. When the patient has progressed to a sufficient degree, he will be assigned to larger groups in a passive role, e.g., a spectator at ball games, movies, or programs.

4. The patient is eventually "graduated" to the active role of a member of a team in athletic activities, or a performer in a program, or as a member of one of the "patient-centered" groups, e.g., the patient council or various service groups, or the hospital newspaper.

The recreational therapy program, together with the other adjunctive therapies, provides the doctor with a "clinical laboratory" in which to observe his patient's behavior. The security offered by the hospital and the consistent approach by the hospital staff provide the patient with a "mirror" in which he can view his behavior, study its effects, and put into practice modifications in his personal relationships, thus utilizing those insights gained from the patient's interviews with his hospital doctor or psychotherapist.⁹

An extremely important factor in the success of a milieu program is that of communication between all the people involved in the patient's care. Verbal reports and written reports are essential in keeping the doctor informed about his patient's progress and, also, significant changes in the patient's behavior. Daily communication between the nursing and adjunctive therapy departments is essential, as well as constant and free communication among the various units of the adjunctive therapy department. Although the staff of the various units should be specialists in their particular area, e.g., recreation, arts and crafts, music, and so on, they should possess a flexibility enabling them to work with patients in other areas as well.

What lies ahead? There is a great need for research in several areas. Particularly, we need to discover ways that a milieu therapy program can be adapted to the needs of the large public mental hospitals where they have neither the physical facilities nor the manpower for such a degree of individual attention.¹² We need to know more about the psychology of various forms of recreational activities, and to discover new methods of meeting the infinitely diverse individual needs.¹¹ Heretofore, there has been a paucity of experimental work conducted under valid research methods. This is largely due to the fact that the workers in the various areas of adjunctive therapy, e.g., recreational, occupational, music, and so on, have not had adequate academic preparation and training to conduct scientific research, and those people who are trained and prepared to conduct experiments, e.g., psychologists, sociologists, and so on, have had little

experience with the media involved in recreation and the other adjunctive therapies. This of course points to the need for including courses in conducting scientific research in the curriculums for occupational, recreational and music therapists. Refinement of our present knowledge and the discovery of new methods and techniques in adjunctive therapy should enhance the effectiveness of all the "therapies," and enable us to realize more fully our potential for contributing to the rehabilitation of the vast numbers of psychiatric patients in our hospitals today. This, then, is the "challenge for the future."

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PRESCRIBING SPECIFIC RECREATION FOR CHILDREN

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In most hospitals, recreation and diversion represent a significant portion of the occupational therapist's responsibilities. On children's wards, this is especially true. The child in the hospital presents many challenges to the staff: treatment of the specific illness for which he has been admitted, handling his emotional reactions to illness, and development of programs of medical and personality management which will continue to be effective after discharge.

One of the perplexing problems in pediatrics is the child who has acute rheumatic fever, early convalescent poliomyelitis, or some other process for whom the medical staff wishes to have a period of relatively complete rest, but the patient during the recovery period is not so ill that the disease itself immobilizes him.¹ Here the occupational therapist can assist the nurses and doctors by supplying the child with activities to meet his needs within the limits set by the medical staff.

Some interesting figures can be extrapolated from studies of adult cardiac output² and metabolic rate³ under various conditions. There are variations in technique and results depending on a number of factors we need not consider here. For our purposes it will be adequate to give rough estimates of change from the figures at rest supine in bed. Sitting quietly, at ease or listening, the cardiac output falls approximately 8% while metabolic rate increases about 30%. Sitting doing light work with the hands while arms are supported on a table increases cardiac output 15% and metabolic rate 30%. The process of getting into and out of bed increases cardiac output 40% and metabolic rate 200%. Sawing

wood, standing in a shop increases cardiac output 200% and metabolic rate 350%. These estimates allow us to establish, somewhat artificially, several general levels of activity which are of value in approaching program planning for certain metabolic and general diseases in children. Although we do not have available adequate studies performed with children as subjects, it is safe to assume the direction of change will be similar, although the degree of change will probably be greater than in adults.

For children with rheumatic fever and similar problems we have divided bedrest arbitrarily into three levels:

1. Complete rest, recumbent or semi-reclining
2. Bedrest with over-bed table = minimal activity
3. Bedrest with free arm movement = moderate activity

The basic approach to the first category is passive participation by using music, stories, word games, watching fish, or looking at pictures, and since it is usually applied to acutely ill patients, it does not often become a problem for enforcement. It is evident, however, that any prolonged period of relatively complete rest, especially in a private room, will lead to psychologic reactions in many patients. For this reason it is important to continue some type of activity to prevent withdrawal and depression. Here the occupational therapist must be the source of ideas, materials and equipment once the order for rest is written.

The second category particularly is difficult to achieve in practice. In one hospital, for example, the chief of service defines bedrest as "keep-

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ing one foot within twelve inches of the bed at all times," and often, then, these youngsters are more active than those sitting on a chair working at a table. One key to maintaining bedrest is having a great variety of interesting materials requiring little or no arm use. Anything which can be done on a table top with arms and forearms supported will almost certainly fit this category.

The third category, bedrest with moderate activity, allows dressing and free use of arms with little resistance. There is little problem finding enough variety at this level since in addition to these particular activities, the quieter ones used in levels one and two are also available.

At the other end of the activity scale we find the child with diabetes. It has been a common experience, in attempting to adjust diet and insulin dosage, that a program which works well in the hospital immediately turns bad on discharge. In such a case, more often than not, the diet and insulin have been regulated to a sedentary hospital existence.⁴ The child at home is free to play actively and to go to school. Under such circumstances a given diet requires less insulin.⁵ Through the combined efforts of physical therapy and occupational therapy a level of metabolism approaching that in the home situation can be developed before discharge. Here again, the medical staff will estimate the degree of exercise desired. The therapist then can select high-energy activities such as heavy crafts, active games and the like, which represent the child's ability and interest.

There is another broad area which deserves consideration. The therapist assigned for recreation and so-called diversional activities gives valuable long-time assistance to the child with a convulsive disorder or hemophilia if on each of his many visits to the hospital there is re-evaluation of his ability and interest. In this way leisure time activities both on the ward and after discharge can be channeled away from sharp tools, moving equipment, and such things which are a continuous threat to a life of health, toward other interests and hobbies which for this individual are quite satisfying.

Proper management of a child with any illness or disability does not end with a prescription for medicine nor does treatment end on discharge from the hospital. Responsibility for various facets of treatment is distributed among members of the team, but the child remains undivided.⁶ Each of us deals with a child with a disease or disability. This child reacts to separation from home, to strange food, strange beds, to isolation in a room, to injections of medicine, to visits and examinations by strangers and all the individual processes by which care in a mod-

ern hospital setting is delivered. Here again the introduction of an interesting variety of recreational activities may assist him to become comfortable in spite of it all.

Each category of activities discussed is relatively specific as to cardiac output and metabolic demand. The key is the position of the trunk along with support and degree of motion of extremities. The medical staff should indicate the amount of activity desired. To maintain any degree of consistent control the interest of each individual child is important. There are obvious variations from one age level to another.^{7, 8} There are less obvious but often more important differences in interest between two people of the same age.¹ The success of any program such as this depends on the skill of the occupational therapist in discovering enough interests and abilities to devise a large variety of activities which will allow the child to remain under treatment, so to speak, throughout the day every day. An arbitrary selection of materials and equipment to be applied to any six year, male diabetic convalescent or ten year, female, rheumatic, acute, would not be very effective. Just as the key to our categories lies in position and movement, the key to their application lies in interest and ability.

The therapist determines the interests and abilities of each patient. He then sets up a supply of specific materials to be used throughout the day and evening, including weekends. The ward nurse and aide can readily provide the child, from the shelf or box with his name, new material when he loses interest or has completed previously supplied items. Thus the therapist's time and influence extend beyond the half hour or one hour per day during which it is possible to have direct patient contact. In our experience it has not increased the amount of time and attention necessary on the part of nurses and others on the ward. It is easy to see that children occupied with stimulating, constructive work, including school lessons, while at bedrest with minimal activity, will create fewer distractions and will require less reminding or scolding to remain at rest. Where there are a number of children with similar disabilities who have areas of common interest it is possible to have some group activities, but they must not be so rigid as to fail to recognize the differences discussed.

In summary, the occupational therapist is the member of the treatment team who has the skill and training necessary for developing individual activity programs which can be continuously applied, either in the hospital or at home, in the management of specific disease entities requiring control of a given child's activity. Because the program considers not only his medical needs

but also his emotional state, his interest, and his ability, it helps prevent depression and adverse reaction to illness which otherwise may occur in response to externally applied control of activity.

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Session On Pre-Vocational Therapy

PREVOCATIONAL CONTRIBUTIONS TO VOCATIONAL REHABILITATION

ROBERT A. WALKER*

Prevocational literature has for the most part stressed the value of its work in the areas of aptitudes, interests and work habits. However, a well functioning prevocational unit can aid in other phases of vocational rehabilitation such as counseling and job placement. To illustrate this point the vocational counselor's duties were divided into six areas: assessment, counseling, occupational information, training, job placement and follow-up.

Assessment. The vocational counselor must assess his patient's work experience, education, intelligence, aptitudes, interests, proficiency, personality and physical capacities. His techniques are interviews, psychometric tests and personal observation.

The patient's stated employment history can often be validated by a prevocational exploration requiring the patient to demonstrate his occupational skills. The information can aid in establishing whether it is feasible for the patient to return to his former occupation, what assistive devices might be necessary or whether new vocational areas must be explored.

Since many workers utilize educational skills in performing their jobs it is also possible to estimate and validate the educational level of patients as reflected by an observation of their performance.

The field of psychology has for many years pioneered test research in the areas of intelligence, aptitude, proficiency, interest, personality, and so on. In these extremely important areas prevocational exploration assists in determining the kind and degree of ability as well as how

successfully the patient actually uses his abilities and capacities.

The area of intelligence illustrates how prevocational techniques can be of assistance. Standardized intelligence tests offer an estimate of a person's innate capacity for intellectual achievement. However, intelligence tests are limited in their ability to predict how successfully an individual will use his intelligence in a specific situation. Psychology has recognized that individuals with identical levels of ability are uniquely different in the degree that this ability is utilized. Prevocational exploration programs can identify patients who under-and over-achieve, thereby improving the quality of vocational guidance.

In the measurement of aptitudes, psychology has many well standardized tests which give indications of the patient's ability to perform in selected work areas. However, even though these instruments have been used for many years there is still considerable disparity between measured aptitude and job performance. By providing a direct measure of job skills prevocational tests eliminate much of this disparity.

The measurement of interest has also received the attention of psychologists for many years. Counselors now possess many well standardized inventories which give indications concerning vocational objectives which lie within the patient's area of interest. However, interest testing of the severely handicapped presents many problems and it is questionable whether these formalized tests

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give an estimate of true job interest. In some cases the handicapped person has not had a chance to experience the many activities which must be selected from the interest inventory. In the case of the newly disabled we find that interest choices have been distorted because of a new self-concept. A prevocational exploration in which the patient can work in an area where the counselor feels his basic interest patterns may lie, can offer direct evidence of the patient's vocational interest.

Proficiency and achievement tests have long been used by psychologists to estimate the level of a person's knowledge in such formalized educational areas as grammar, spelling, and mathematics. However, although these tests indicate knowledge in a specific area, they may not predict how a patient might utilize this proficiency in a vocational situation. Prevocational testing not only serves to estimate a patient's proficiency but, perhaps of greater importance, it illustrates how the patient utilizes and applies this information in vocational situations.

Personality inventories are becoming increasingly important in vocational counseling. However, psychology frequently has developed these instruments based on psychiatric categories such as depression or introversion-extroversion. Relating this type of data to a patient's emotional adjustment on a job or to other individuals on the job is extremely difficult. Psychologists have long known that most job failures relate not to the employee's lack of tested intelligence, aptitude or interest but simply to his inability to adjust to the job. Prevocational evaluation offers the most direct measurement of emotional attitudes involved in working which has so far been devised.

2. *Counseling.* Vocational counseling is another duty in which the prevocational therapist can be of assistance. A prerequisite of good counseling is the establishment of a specific problem which can be dealt with in a therapeutic relationship. Prevocational analysis assists by providing problems which can be discussed in counseling interviews. At the same time the patient can work out his problems in a simulated employment situation.

3. *Occupational information.* Occupational information is still another tool of the vocational counselor. Prevocational experience enables the patient to explore work areas and from this experience obtain occupational information on such important factors as job duties and skill demands.

4. *Training.* Training is a resource which the vocational counselor must consider in vocational planning. This area utilizes formal education and on-the-job training so that the patient can acquire a skill prior to employment. There

is something of a controversy as to the prevocational therapist's role in training. It is generally felt that it is not the function of the prevocational therapist to duplicate the services of formalized accredited training institutions in the community. However many patients, especially the elderly and the severely disabled, have deficient educations. Unfortunately, community resources fail to provide remedial training for these patients. Since this situation is quite common, many of our hospital patients have completed correspondence courses of various kinds during the period of their hospitalization. These courses are under the general supervision of the prevocational therapist. As rehabilitation workers become involved with these cases the problem of remedial training becomes more acute. It is probable that the prevocational therapist's role in this area will be increasing.

The controversy as to the word "training" seems to be a semantic one. Prevocational therapists commonly refuse to admit that they indulge in training. However, it is almost impossible to evaluate a patient in a vocational area without first training him.

5. *Job placement.* Job placement may be the culmination of a long rehabilitation program. Direct job placement should rarely be attempted by a prevocational therapist, since the techniques of job placement are varied and complex and an extensive knowledge of personnel practices and industrial techniques is necessary. However, the prevocational therapist can indirectly aid the counselor in job placement. Not only can prevocational experience determine capacities and demands but it can assist in developing work tolerance. At the University of Minnesota Hospitals paraplegics who are to be placed in factory jobs are required to attend prevocational classes from 8:00 in the morning until 4:30 in the afternoon. They must stand while performing selected job tasks for the entire work day except for the noon lunch hour and mid-morning and mid-afternoon breaks. The development of standing tolerance enable the vocational counselor to offer the patient a greater variety of possible jobs.

6. *Follow-up.* Follow-up is a duty of the vocational counselor which follows job placement. It is at this time that the counselor must determine whether the vocational objective has been a sound one from both the employee's and the employer's point of view. In this area the prevocational therapist can assist a vocational counselor by devising adaptive devices. These devices are often found necessary in a follow-up since it is difficult to completely anticipate all of the demands of a job at the time of placement. Other problems occur because job demands periodically change. Adaptive equipment not neces-

sary at the onset of employment may later be necessary to retain employment. The prevocational therapist because of his intimate knowledge of the patient in his prevocational experience can assist other personnel in developing suitable aids and assistive devices in order to insure stable employment.

TRAINING

The true value of prevocational exploration lies in the totality of the evaluation. The question now arises as to the educational background required to perform in this very complex and important phase of rehabilitation. A survey of the personnel in our labor force fails to reveal any one occupational group which adequately qualifies for employment in the prevocational field. Because of the close relationship with vocational counseling, training is necessary in the fields of industrial psychology, industrial engineering, industrial education, educational psychology, and perhaps industrial relations. An industrial orientation is essential. A study of prevocational duties is the first step in properly determining curriculum requirements. This is a research project which must be evolved by any professional group contemplating accreditation in this area.

At the present time I question whether occupational therapists have adequate backgrounds to perform in this area at the skill level which is required. Although occupational therapists possess an excellent medical background they should also have an intimate knowledge of industrial psychology similar to that of a vocational counselor as well as an industrial orientation comparable to that of an industrial education specialist. Because of the extensive course work which is needed it would appear that the proper training to qualify occupational therapists as prevocational specialists should be at a postgraduate level.

It is time for occupational therapists to decide whether the relationship between occupational therapy and prevocational exploration was a marriage of convenience, created by necessity and proximity. Prevocational evaluation is too important a discipline to be filled by inadequately trained personnel. If occupational therapists wish to continue in this new and complex area they are obligated to themselves, to other professional personnel, and to the patient to undergo a critical examination of their present capacities and to outline a curriculum appropriate to the demands of the job.

THE ROLE OF THE OCCUPATIONAL THERAPIST IN VOCATIONAL REHABILITATION

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The occupational therapist, because of his training in medical services and in the use of tools and work equipment, as well as his experience in estimating and evaluating the physical and emotional capacities of an individual in terms of ability, endurance, work habits and skills, has a definite and important role in the field of vocational rehabilitation.

Because of the growing awareness by the occupational therapist of the total needs of the disabled, there is a growing concern as to the most realistic and comprehensive approach to the meeting of these needs, including the vocational needs.

For many years, the occupational therapy department of the May T. Morrison Center for Rehabilitation in San Francisco has been conducting a "work therapy" program. This program was designed along lines similar to that at the Workmen's Compensation Convalescent Centre in Malton, Canada. This program consists of those activities which are simulations of actual on-the-job conditions of the individual patient and can be used both as an estimate of ability and as an

exercise medium to develop work habits, confidence, increase physical and emotional tolerance, improve strength, range of motion, coordination and dexterity. In addition to these points, other therapeutic values of work therapy have emerged. The familiar working situations promote good physiological effects. The clear treatment objectives provide motivation. The availability of the tools used in his trade allows the injured workman to begin developing the speed and skill he had attained during his employment. The occupational therapist is provided with an opportunity to grade activities as to length of time, resistances used, distances that weights are lifted and carried, positions of work, and so on. This type of schedule is of aid in maintaining and improving the necessary strength and endurance in order for the individual to carry on a full work day on completion of his physical restoration program. However, the success of such a program is limited

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unless additional services support it. The valuable information derived from these estimates of work capacity must be assembled with other evaluations if we are to meet the total needs of the patient.

The work and personal evaluation unit at the Center was established under Public Law 565, the Vocational Rehabilitation Act, amended 1954, Section 4A2. Federal funds were matched with Center funds on a two-thirds to one-third basis in order to assist in the development of such a program. The purpose of this unit is "to ascertain the maximum practical level of work and/or personal functioning that a disabled individual is capable of attaining, whether this be in competitive employment, sheltered or homebound employment or in greater personal and social adjustment, and to make recommendations to implement the attainment of the goals."

The policy of this unit, as of the rest of the treatment programs at the Center, is such that all referrals must be made by a physician. The number of hours and days that the patient should participate in work sampling must be prescribed by his physician and adhered to during the process.

After the initial interview with the unit coordinator, the patient is given an examination by the physiatrist to evaluate physical capacities. He is aided by the physical therapist in muscle examination, range of motion tests and functional activity testing.

Intelligence, aptitude, interest and personality tests are administered by the psychometrist. The psychologist gives projective or clinical tests and the two collaborate in preparing this evaluation report. The psychiatrist interviews the patient and prepares a psychiatric evaluation. Social history is taken by the medical social worker; the work and educational history is obtained by the vocational counselor. Because the number and kinds of work samples given to the individual depend upon his physical capacities, employment and educational history, psychological test results and tentative personality appraisal, the vocational counselor, physiatrist, occupational therapist and industrial engineer meet to draw up a work sample prescription prior to the work testing. During this conference, the number of hours and days of work sampling are set up, the specific jobs prescribed, and the points to be stressed and observed are discussed.

On completion of the work sampling tests, detailed reports are made of the patient's performance and are presented at the staff conference. In this report, the occupational therapist and the industrial engineer will make recommendations as to the need for equipment or self-help

devices on the job or at home; suggestions for a therapeutic program; the area of work possible, such as competitive, selective, home; the length of working day and the actual job classification if possible. Interpretation of the team's recommendations is made to the referring physician by the unit coordinator.

During the initial phases of establishing the evaluation service, much time was given to the setting-up of the kinds of pre-vocational exploration tests which have now been incorporated in our program. It soon became evident, as we were devising job simulations, that standard procedures of test-administration, standard use of equipment and standard evaluating forms were required. The vocational counselor suggested that we structure our work tests around the classifications found in the *Dictionary of Occupational Titles*, Part IV, Entry Occupational Classification, prepared by the division of occupational analysis of the United States Employment Service. The major classifications are designated as follows: O-X, Professional, Technical and Managerial Work; 1-X, Clerical and Sales Work; 2-X, Service Work; 3-X, Agricultural, Marine and Forestry Work; 4-X, Mechanical Work; 6-X, Manual Work. Further classification is carried out by a numerical decimal code.

Following a period of experimenting and re-sorting, tests were organized and test-kits were developed. Each kit contains all the instructions, records and forms related to that test. For example, in the outline of the test will be found a short description of the test, an outline of the purpose and objectives, the physical demands of the operation, a list of all the equipment and supplies required for the administration of the test, a detailed list of all the necessary steps to prepare the work place, an explanation of how much and what information is to be given the patient, and full instructions as to what is to be included in the timing, what items are to be recorded as errors, and how to figure gross and net ratings.

In addition, a copy of the instructions to the test-administrator is provided, instructions to the patient if diagrams or written directions are to be followed, work sheets for the patient, answer sheets for the test-administrator, a record of the standard times for completing the test, and record sheets on which are written the date, name, timing and rating each time the test is used.

At first the scope of the occupational therapist was limited to the following: clerical work, public contact work such as telephone and switchboard; domestic service work; light, medium and heavy elemental labor; and some semi-skilled bench crafts. The industrial engineer has been

helpful in devising, administering and teaching the therapist to give tests in the more complex business machines operations, as in the use of the calculator, and in skilled and semi-skilled manual and mechanical work, such as in using power machines and hand tools in fabrication and assembly work.

It is felt that the industrial engineer can better judge the finished product as to its acceptance by a manufacturer and can provide a critical evaluation of the client's use of tools and his various mechanical aptitudes. The occupational therapist through his observation during these tests, is able to differentiate innate dexterity or mechanical "know-how" from defects in training in the use of a prosthesis, for example, or defects due to the disability. The two collaborate in originating and constructing adaptive devices to improve work performance. The therapist is qualified to judge the emotional aspects of the work performance because of his psychological training and experience in working with patients and their problems. The engineer, however, is invaluable in determining whether these emotional factors enter into the potential rate of production needed in the case of piece or assembly work.

A work-test sheet has been devised to facilitate the time-study which is, in most cases, a part of the test-administration. It not only provides a suitable place for recording the various items involved, but also calls attention to the various steps required to complete the test, and to the various items regarding which a subjective rating is desired. Subjective ratings of an E (excellent), G (good), F (fair), P (poor), or O rating can be shown for any or all of the following: attentiveness, cooperation, concentration, coordination, work tolerance, emotional tolerance, appreciation of time, appreciation of quality, following of directions, whether verbal, written or diagrams.

The report of the test performance is the mutual effort of the occupational therapist and the industrial engineer and is both objective and subjective in nature. When it came to setting up a standard procedure by which we could evaluate test results, a number of difficult problems were presented. First was the setting of a point of reference, or "norm," relative to which scores would be calculated. The second problem was the evaluating of trends in production speed. Third was the evaluation and significance of errors. Fourth was the evaluation of the patient on the basis of observation of those subjective qualities listed earlier.

At the Morrison Center, we have proceeded on the concept that the "norm" in rate of production represents what would be "performance of non-handicapped workers familiar with the job

being tested, working at a tempo that would be required in competitive employment." The entire team has been working towards the establishment of this "norm" in order to make it a valid point of reference for the varied types of disabled individuals seen. Working on the above-mentioned concept of a norm, it would show that a test score of 100% would indicate that the client, so far as the rate of production is concerned, would have little difficulty in holding a job in competitive industry in the kinds of work covered in his work evaluation tests.

An important consideration of the relation to the norm, or the test-rating figure, is that, because a careful record is kept each time the test is administered, these records will eventually make possible the calculation of "percentile" figures based on the actual use of the tests. These, properly related to the various classifications of persons involved, should enhance the value of the tests.

The occupational therapist must be thoroughly realistic in evaluating the patient's performance in work areas and have an effective concept of actual job requirements. Much of this information can be gained from the vocational counselor. If a counselor is not active in a case, the occupational therapist should gain permission to contact employers and visit work areas. As well as studying the physical demands of a job through these interviews, he should study the material put out by the United States Employment Service and Department of Labor, such as the job descriptions in the occupational guides.

Most of the vocational counselors who have received work evaluation reports have felt that the work sampling procedure has provided qualitative and quantitative measures by which they can provide a better training program and job placement for their clients. These test procedures show the counselor what the client actually can do under certain conditions and in specific job families.

We have attempted to set up testing situations which are not limited in scope by rigid vocational training programs or sub-contract commitments. As there is little practical information available in the literature on work testing or job simulation, we have found it necessary to originate the tests that we have been using. We have made only a start toward providing the large battery of tests that should eventually be available for use.

* * *

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Session On Pediatrics

THE ADOLESCENT AND HIS PROBLEMS

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I have been asked to discuss the adolescent's problems as they may be encountered by the occupational therapist. The latter must communicate with adolescents who are neurotic, psychotic or delinquent. No one can hope to understand the multiplicity of unusual reactions in these emotionally ill children if one does not have a basic familiarity with the complexities of behavior in the normal adolescent.

THE NORMAL ADOLESCENT

Adolescence is a physical phenomenon associated with profound psychologic changes. The emotional problems and the emotional growth have their biologic origin in the glandular-hormonal changes that occur at pubescence and in the physical changes that result from the hormonal readjustment. Physiologically, the childhood bodily structure fairly rapidly matures. Synchronous with this physical growth is an intensification of the psychologic impulse to grow up.

The two major psychologic changes are: (1) An awakening of sexual interest, (2) A more independent adult status.

How these two major changes evolve is drastically determined by the experiences of the child with his family in the years gone by. All of this needs considerable elaboration.

The composite picture of the behavior of adolescence often is apparently contradictory and confused. It is no simple step to cross the terrain between childhood and adulthood as it stands in our world today. In our culture marriage must be delayed until a greater degree of independence can be achieved through education and greater economic growth. Obviously in our western culture, then, many complex external checks of a social nature are imposed upon the spontaneity of the physical process of maturation. Many paradoxes result.

Josselyn¹ describes this particular paradox clearly. "On one hand, the adolescent is accepted as a maturing preadult. Permission is given to modify the character of his social life . . . Supervision of leisure time activity by the parent is either markedly reduced or not existent at all. The school takes cognizance of this change by introducing the departmentalized type of education in which more responsibility is placed upon the student and in which the intensity of the relationship with a teacher is diluted by the presence of several teachers. The child is now

expected to solve his problems himself, or to seek help upon his own initiative.

"On the other hand, parents and teachers, frightened by the apparent instability of the adolescent, tend to inhibit where freedom formerly was implied. Some parents who, during the latency period of the child, gradually gained confidence in his judgment, now, as the child enters adolescence, become, and not without some justification, unsure of this unpredictable person's capacity to evaluate situations. This unsureness in the parents is particularly true in parents rather unstable themselves. This contradictory attitude is nicely illustrated in a common struggle—the struggle between the parent and the child concerning the hour of coming in at night. The adolescent is not only allowed but is usually encouraged by the modern parent to date. Any of these dates are acceptable—if the child returns at a stated hour . . . Many parents are surprisingly inflexible about the hour . . . Parents often rationalize this stand by saying that the child needs rest; late hours result in fatigue. This rationalization may be justified, but too often the same parent recounts with pride how parent and child talked for an hour after his return from a date about 'all that happened.' Where then is the needed rest?"

But to forget the paradoxes for a time, let us not believe that all is confusion. In a family background of respect and love for the child, the transition to adulthood is a rather solid, tangible and understandable phenomenon. If there has been easy and frank discussion with the mother from earliest childhood, the young girl listens without anxiety to her mother's explanation of menstruation—its relationship to the egg or ovum produced by the ovaries each month as the girl matures. To grown-ups whom they trust, girls normally are able to express their pleasure at the onset of the menses.

The boy needs education about his growing up at this time, too. He has questions about nocturnal emissions about which he is too anxious and too shy to ask. He needs to know that this is normal for the maturing sexual organs. He has questions also about menstruation in girls. Undoubtedly, if he were wisely informed, he

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would become protective and kindly, aware of the young girl's shyness and right to privacy in these matters.

Toward the end of pre-adolescence we observe in boys and girls increasing uneasiness over any display of affection from the parents. Although this is a source of pain to some possessive parents, it is an indication of the normal onset of puberty and the child's need to defend himself against his earlier emotional attachments to the parents. It can become very confusing for the child if the parents resent this withdrawal, and thus increase the child's feeling that he has failed his parents. The occupational therapist will do well to respect this typical adolescent withdrawal from physical evidence of affection.

By the age of 12 and 13 years the girls begin again, as at 4 and 5 years, to enjoy adorning and displaying their bodies. To be comfortable, they must conform to the prevailing style. Boys of the same age are thinking not so much of making themselves handsome as of becoming important through some achievement in the world. Normally, there is no sudden ushering in of puberty, but the observer sees emotional and bodily changes gradually taking place.

In the case of sick adolescents, occupational therapists see many children who are not going through adolescence as I have described the normal process. One of the common features you see is the regressed adolescent: the child whose insecurity and conflict are so great that he judges it to be safer to remain more childish and less grown up. Shyness and obesity are common defenses. Emotional immaturity is a necessary defense; such a child cannot be pushed or superficially talked out of it.

CONSERVATISM OR REVOLT

"What is happening specifically in the adolescent? The body is now flooded with the hormones from the sexual glands which become increasingly active with puberty . . . Since all this feeling associated with the body makes for new adjustments, they may become insecure. A common mode of handling insecurity at any age is to try, consciously or unconsciously, to deny it through expressions of defiance and daring. The wise adult does not suppress rebellion rigidly nor does he play into the revolt permissively."² Instead, he does what he can to reassure the child of his attractiveness and worth-whileness and indicates his confidence in the basic good sense of the son or daughter.

Because the responsibilities and changes are so great at this age, the adolescent has to develop a deep conservatism as a protection against failure and unhappiness. Characteristic of the basic

biology of all organisms is the tendency toward self-preservation. Adults can rely on the normal adolescent's sense of good taste, his eagerness to conform. The responsibility of the adults is to guide them into activities that are appropriate to their age and emotional growth. Their tendency to conform does the rest.

The insecurity of adolescence makes boys and girls highly sensitive to criticism. What they wish more than anything else is to be loved. They do not want this love expressed in emotional demonstrativeness, but in confidence and respect from adults. Every child responds unconsciously to what the parents wish him to be, even though these inner wishes are not put into words. If the unconscious wishes of the parents are for illicit or questionable behavior, the adolescent responds accordingly. He identifies you and all adults as having the same wishes for him as the parents, and at first responds according to that view.

The adolescent must be able to assure himself that he is lovable and that he knows how to love. The child who unconsciously and consciously knows he has been truly loved by his parents finds his task infinitely easier than the child who has suffered uncertainty. To reassure himself that he is not childishly dependent solely on the parents for love, the normal adolescent resorts for a time to the age-old defense of his denial of his need for the parents, withdrawing from the parents or turning a borderline incident into a full-fledged battle to prove he has no need for the parent.

Adolescents strive to reassure themselves that they are not "different." Girls turn to girls and boys to boys at first, simply talking things over and speculating about things. When they are alone, face to face, they get down to their more troublesome worries. Sometimes, when their insecurity is great and their self-esteem is at a low ebb, they build themselves up to each other; often some are taken in by accounts of seductive charm or "masculine" prowess. Many normal girls, who are lovable and able to love and therefore hesitate to invest their fine, deep feelings brashly, may be envious of the shallow girls who have less to lose by flirting. The same could be said of the boys.

A close relationship with teachers is of basic importance in the total growth of these young students. Here, too, the recreational and occupational therapists may have great appeal to members of this age group and can make capital of such adolescent yearning. The normal adolescent has a large fund of energy, and with the thought of years ahead, given reassurance, he feels he can achieve much.

BOY MEETS GIRL

The normal adolescent emancipates himself only gradually from his parents. To find his way to the opposite sex he often seeks, first, friendliness, confidence and closeness to members of his own sex. This bond, this realization of loving and being loved by a dear friend of one's own sex, is a boon to the adolescent. It is only a passing stage in the growth of the child's confidence in himself which helps him later to make a comfortable relationship with members of the opposite sex. A secure, normal adolescent moves ahead. If, however, a boy or girl finds it impossible to have more than one friend at a time and has no capacity to share his or her interests with others, then parents and educators should recognize this as an indication of insecurity, and they should encourage the child toward greater self-confidence, or, if need be, they should get some professional help.

In your work in the hospitals you will encounter adolescents who have become fixated in some overt homosexual adaptation. You will need close co-operation with the psychiatrist to be sure that your relationship to the child cannot be maneuvered by her into compounding the complexities of the established fixation. All workers and therapists should be suspicious of themselves and their motives if they tend in any way to feel possessive with a patient.

There are facts about relationships between the sexes that should be available to the concerned and wondering child. Should boys and girls kiss or neck, and how far should they go? If they were certain that they really were lovable and loving, there would be little question. No adolescent child, however, can be completely sure of his acceptability, since this comes about only with the gradual process of growth. Short cuts to the assurance of being loved never work. By "short cuts" we mean sexual experimentation without experiencing at the same time the heightened self-esteem and security that come with enjoying friendliness, warmth and admiration from the partner. Sexual play alone leaves both partners dissatisfied with themselves, empty or perhaps depressed. Only the growing, maturing boy and girl can become fine friends, loyal, admiring, protective, fair and generous.

The sexual relationship should in no way jeopardize the health or happiness of another individual. Therefore, genital sexuality is confined to the security of marriage. This statement carries with it nothing prudish or mid-Victorian, but implies the essence of the highest morality among human beings. With this attitude, any intimate sexual relationship between two people would be based on a mature sense of responsibility toward each other. Only when the young man has grown

sufficiently that his own happiness is concerned with the total welfare and security of his partner and child can he be considered mature and ready for love and the sexuality that goes with it. When a young girl is still so insecure about her feminine loveliness and capacity to love that to hold a boy she feels she must enter into promiscuous sexual intimacy, she needs to grow up more or, if necessary, to have some professional help.

What is the adolescent to do about the physiologic tension created by the sexual hormones which now flood the body? To some extent this is drained off quite acceptably through dancing and moderate "petting." About masturbation, an age-old normal means of discharging sexual tension, there is much dubious folklore which is terrifying to insecure young people. According to scientific knowledge, the only unsatisfactory and emotionally disturbing aspect of masturbation is that relief of physiologic tension alone is not enough to make one happy. If a child is unhappy, if he finds it difficult to be friendly and feel loved, then masturbation may leave him more lonely, depressed and self-critical. If the depression and unhappiness become marked, then the child is obviously insecure in his total emotional adjustment and is projecting all his anxiety onto the problem of masturbation.

If, by the end of adolescence, inner security, with warmth and friendliness for both sexes, has developed, there need be little concern for the future healthy emotional adjustment of the boy or girl. Such young people can accept a generous, responsible attitude in marriage and grow steadily toward maturity together.

FAULTY ADJUSTMENTS

Since, in the lives of most people, relationships from birth to marriage are never completely free of misunderstandings, we turn to a consideration of some of the clinical evidences of faulty emotional adjustment in adolescence.

Neurosis. From descriptions of the earliest phases of emotional development, with which you are familiar, it is not difficult to see what makes for distorted personalities. When the distortion is not severe, we call it "neurosis." When the personality is so extensively involved that the individual becomes incapable of seeing the basic realities about him, we speak of his suffering from a "psychosis."

It has become clear through research that if fear or anxiety or hate or sexual impulse creates greater discomfort than the individual can bear, such impulses are pushed out of consciousness by a psychologic mechanism called "repression." The impulses continue to exist in the unconscious, however, and are always in danger of returning to consciousness should the repressive mechanism

fail to work. If some frustration or fright of considerable magnitude were added to the individual already carrying a burden of repressed hostility, the repressive mechanism at this point might not be able to block all this from consciousness. If the person has a strong conscience, he cannot bear to let himself express so much hate or antisocial feeling directly. Another line of defense must therefore be brought into play. The repression partially gives way and a complicated psychologic twist occurs which lets the hate or the sexual impulse come out, not directly, but in some disguised form in which it remains acceptably hidden from the individual and others about him. These disguised expressions of his forbidden hostility or sexuality are symptoms of neurosis. The patient may suffer because of such symptoms, but not to the same degree that he would suffer from the fear and guilt which would result from giving way directly to the impulse which was unacceptable to his conscience.

What are some of these neurotic symptoms? Let us take a simple example. A young girl may be too embarrassed to face her sexual feelings. Every time a boy speaks to her she may blush violently. She is not aware that unconsciously she has fantasies of guilt about her sexual feelings, but the tell-tale somatic expression of her embarrassment appears. Most adolescent girls blush some, but gradually their anxiety about sexuality normally subsides and with it the blushing. If the young woman continues to find herself so uneasy that she cannot converse freely with men, she may need help.

In the psychiatric hospital population the occupational therapist will certainly encounter the hysterical adolescent girl or her counterpart in the boy. This is the girl often dressed and tinted for an older age or dressed in paradoxes. For instance, she may wear bobby sox with long earrings and much make up. She is seductive and exhibitionistic with men immediately—this is far less apparent when she meets women. On the other hand, the hysterical boys are seductive and winning with the women. Why are such girls so seductive with much hostility just below the surface? We always find in their background that the father has been seductive with his daughter, the mother usually condoning it. The mother may even foster this seductive air about the girl through all manner of suggestive remarks to the girl about men. The same kind and variable degrees of seductiveness go on between mothers and sons which account for the adolescent boy's seductive, veiled, hostile approach to women. Great hostility is close to the surface in all hysterical seductive patients because when the parent stimulated them, this generated anger, since

the parental stimulation led only to frustration sexually. When the occupational therapist does not respond to the seduction the resentment at the thwarting may emerge at once, and this is natural. The therapist should not compound the damage done by the parents by adapting, as have the parents. The hysterical girl inappropriately stimulated to a hostile competition with the mother will always be easily angered by women. These patients with such seductive backgrounds require a very close understanding between psychiatrist and occupational therapist.

Most people at some time have experienced such terror that for a second they could not catch their breath. When this is carried further and becomes interlinked with some deep and frightening unconscious conflict, we call it "asthma." If buried terror or rage is constantly plaguing us, the blood pressure may gradually go up and stay at a high level. There have been many discussions of the relationship of stomach ulcers to unconscious longing for love (food), and such investigators have shown how the organs can react to emotional conflicts. These organ reactions to emotional conflicts are the concern of the entire medical profession today.

Chronic ulcerative colitis, with its gross emotional innerlay, is well known to all of you. What you are called upon to do with a neurotic adolescent with this disease, of course, depends first of all upon the psychiatrist's evaluation of the patient with his disease. Illustratively, let us consider a case of ulcerative colitis. The patient is very sick when a stage of remission is not present. I believe with Margolin that such patients, when an active phase of the disease is present, should not be burdened in any way. They all want to regress emotionally to a less burdensome, more childlike existence. This regression should be permitted and encouraged, but the patient concomitantly should be afforded unstinting emotional support. In a permissive setting such regression may proceed to an infantile stage. Occupational therapy with a disease in such an active phase is too burdensome, and requires too much productiveness from the patient. No effort should be made to push him in any way. When he begins to improve physiologically and the depression subsides, associated with evidences of his wishing to be more mature, then opportunities for occupational therapy may be offered with safety.

Another symptom of neurosis is withdrawal from people. For instance, a young girl, anxious since childhood because she thinks she is not loved, avoids awareness of this burdensome humiliation by withdrawing from social contacts. She dares not risk a further rebuff, for this might unleash to consciousness the early painful feel-

ings. Certain personality traits may develop as neurotic symptoms. Coldness, withdrawal, extreme sensitiveness or shyness, rigidity of behavior, intolerance, submissiveness, meticulousness and many other character traits are known to be neurotic defenses which have developed as protection from awareness of early hurt, fear and hate, long since buried in the unconscious.

When the occupational therapist sees these shy, withdrawn adolescents, it becomes obvious that they are most uncomfortable in group situations. They prefer to work alone. Often the parents have been crowding them for years to be more outgoing, in spite of their insecurity. To crowd them to participate in group activities is to compound their burden. The withdrawal is a defense against insecurity and anxiety, and until the psychotherapist has resolved the sources of such tension the patient should go at his own pace. At times the psychiatrist will advise you to press the patient into the group. This may be because the psychiatrist wishes to mobilize more conscious anxiety in the patient. With such a procedure you may well encounter evidences of irritability and resentment in the patient which are therapeutically in order. A comment to the patient that you can observe this and yet not retaliate can constitute a therapeutic step for the patient.

One of the most common defensive adaptations in adolescents is that of the blase behavior. Probably this is one of the most exasperating symptoms occupational therapists encounter. When you suggest work in which adolescents might achieve some gratification, you are met with indifference, boredom and patronizing glances or remarks. A child emotionally healthy and happy from early childhood has been working at jobs with the mother and father. The blase, bored, unenthusiastic adolescents have had no such happy, productive experiences in their backgrounds and underneath there is little security or joy in working with you. It does no good to scold and resent them, because this is what they have experienced and have adapted to, with deaf ears. The occupational therapist would make more basic strides if she only chatted with such a child for a long time. These adolescents will never move until they begin to like you.

When the adolescent assumes the sullen, silent approach, then the worker really feels blocked. I have had sullen, blase adolescents spend nine months to a year, hour after hour, in my office, saying little. If we realize the basic mistrust and accept the fact that this child will take infinite patience about the time necessary to build up confidence, we can settle down without irritation and with no sense of failure.

Many neurotic behavior reactions develop in people secondary to minor or major organic disease. The emotional problems of the child and adolescent poliomyelitic patient can assume major proportions, including loss of self-esteem, rage at the disability and the defective appearance, regression to a more dependent childlike leaning on others, with or without overt hostility, withdrawal from peers, depression with no urge or drive to sublimate or substitute new areas for achievement. The attitude may be "what's the use—I am finished." All these neurotic or depressive attitudes, if prolonged in the patient, are greatly augmented by the neurotic reactions of the parents. The disfigurements and handicaps caused by severe burns comprise a formidable psychotherapeutic task on any hospital service.

Absolute honesty and frankness are necessary if we are to enlist the confidence of these handicapped, disfigured adolescents. For instance, if they say, "I look awful," or "I look ugly," and they really do, the occupational therapist should admit the truth. If you admit that you recognize the true state of affairs, and yet can like the patient in spite of the defect, then he can begin to trust you. If you like a patient he feels it—you do not have to verbalize your positive feelings. Any patient will be able to detect whether or not you feel resentment toward him. If he irritates you by his behavior, admit it openly. Of course, if you have inner sources of resentment of your own, unrelated to the specific patient, then tell him, "You irritate me, but it is not simply you; it is partly my problem which I must work on." We psychotherapists must recurrently face such personal problems with our patients.

Psychosis. When a person is so overwhelmed by his fears and feelings that he loses insight into what is real, we call his illness a "psychosis." The psychotic person does not believe his fears or thoughts are irrational, and consequently he makes misinterpretations of everything; these are called "delusions" and "hallucinations." For example, he may be convinced that his physician or his brother is planning to kill him, and no argument will dissuade him from such a conviction. He may twist a harmless remark into what, to him alone, is absolute evidence of evil intention. Often these patients are so frightened that they trust no one.

The therapist would understand far more about how to respond to and deal with the schizophrenic adolescent if he knew more of the causation and evolution of the disorder. The group at the Mayo Clinic has no inclination to be dogmatic about the nature of such etiologic factors, but a large research group there recently has formulated some fairly definite impressions as to

how this disease develops. We intensively studied 27 schizophrenic patients by means of collaborative psychotherapy—that is, concomitant treatment of the two parents as well as the patient. Our studies showed, first, that a majority of the patients had been subjected to overwhelming, parentally instigated trauma, and, second, that the intense hostility inherent in this trauma distorted the whole developing instinctual life of the child. In these families the common defenses were exaggerated projections, denial and conscious lying. The destructiveness toward the child consisted of assaults of a physical or psychologic nature. First were those cases in which parents interfered with normal ego differentiation. Second were discrete parental physical and psychologic assaults classified as murderous (choking), castrative (brutality and threats) and incestuous. Other trauma were parental intentions to drive the patient insane by many means and threats to the patient that he would go insane. Other threats that terrified children were that parents believed the child would become murderous. In all our cases, the destructiveness instigated by one parent had been condoned by the other parent. Therefore, the helpless, unprotected child had no alternative but to identify with the destructive parent, and take on all of these parental attitudes and fantasies about himself. Children identify to a greater or lesser extent with all facets of both parents. They cannot select only those aspects of the parents which appear healthy and safe. Therefore, all therapists dealing with these patients are also dealing with the destructive parents within the patients. These patients are terrified that the destructiveness in them will come out toward the therapists on whom they are dependent for help. It is to be hoped that therapists in all departments do not have such destructive wishes toward the patient. In spite of his delusional projections in which the patient at first sees the therapist as destructive, like the parent, the patient finally, after long treatment, comes to realize that the therapist is not behaving and feeling like the assaultive parent. When occupational therapists begin to realize that the patient is behaving like an exaggerated caricature of the parents' behavior, the therapists come to feel that the patient does not seem so strange and senseless. The sensitive schizophrenic patient senses immediately this altered feeling in all therapists, and reacts to this new reality of feeling that he is understood. Since our research led to greater understanding of the patients, it has been strikingly evident that young psychiatrists feel less strange with, and puzzled by, the patients, and in turn the patients respond to this. If you find the patient's delusions incomprehensible, you will still find that much of him makes

sense to you as soon as you have heard his background. Before occupational therapists make their first contact with a schizophrenic patient, they should know his history, not simply his symptoms, so as to have a basic feeling of knowing the meaning of his present predicament.

In the case of depressed adolescents the occupational therapist should know that the patient is always too guilty about repressed intense hostility. Depending upon the depth of the hostility from consciousness, one's management of the patient varies. If the patient is deeply depressed, support and reassurance and the offering of simple tasks work best. In the case of hostility close to the surface, the psychiatrist may suggest that the occupational therapist should push more firmly, and if the patient appears angry, to tell the patient you realize he is irritated, that that is all right, but that, nevertheless, he should get on with his work.

Delinquency and acting-out. In addition to neurosis and psychosis, there is another great category of adolescent problems: the problem of the delinquent. By "delinquent behavior" we mean antisocial behavior such as stealing, fire-setting, vandalism, sexual promiscuity and truancy.

Such patients have conscience defects, so that they act-out when any inner tension begins to arise. They never have had the proper training and restrictions for the development of guilt in the area in which they act-out.

Mystery enveloped causation here until 15 years ago, when several of us began to study and treat the parents as intensively as the child, or even more so. Startling facts emerged in that research, and we never fail to find similar facts in every such instance that now comes into our hands. The facts are that one parent, or sometimes both, is unconsciously fostering and permitting continuation of the delinquent behavior. You are all familiar with the fact that parents achieve gratification from children's good behavior and successes. There are also parents who unconsciously enjoy satisfaction from children's delinquent behavior. In the case of the individual delinquent, I must emphasize that what is operating in the parents is unconscious, until by certain technics we bring it into the parents' conscious awareness.

Although we find that antisocial impulses are unconscious in these parents, nevertheless such trends are poorly inhibited and are close to breaking through into consciousness. These parental impulses emerge and are deflected by fostering the antisocial behavior in the child. Consciously, most parents are deeply concerned at the child's misguided behavior, but neither has any idea that he or she—the parent—actually is promoting it.

This brings us to the problem of one's individual conscience: that part of us which knows what society regards as right and wrong. How do we get our conscience? (A child's conscience is not inherited but is developed, especially during the first six years of life, through imitation of the total behavior of parents.) This imitation embraces the conscious and unconscious operations of the parents. To an equal extent, conscience develops from the parents' conscious and unconscious image of the child, and from their concepts and hope and fears for the child.

The individual learns to lie, steal, set fires, destroy and misbehave sexually by unconsciously copying the pace set by the parents.

There is not time here to discuss the details of how the destructive parents unconsciously foster such behavior, why only one child of five in a family is chosen to do the stealing. I have written extensively in many papers of these matters. Psychiatrists vary in how they handle such acting-out. I feel that the occupational therapist should take a stand with society on the matter and let no behavior of stealing or other anti-social acting-out go by without setting limits with the patient and telling him that such behavior will be discussed with his psychiatrist. It is

then the responsibility of the psychiatrist to handle this in terms of the conscience defect. For instance, a child may have been made to feel very guilty about sibling rivalry, but nonetheless have been permitted to steal. Thus, until the stealing has come under control, whatever mounting anxiety there may be about unconscious sibling rivalry, is immediately drained off by resort to stealing. This is something with which the psychiatrist must deal.

SUMMARY

The need for an understanding of the problems of the normal adolescent is basic if we are to interpret the behavior of the neurotic, psychotic and delinquent child. I have delineated the prominent features in normal adolescence and have illustrated problems the occupational therapist may encounter in dealing with adolescents in the three major pathologic emotional disorders: neurosis, psychosis and delinquency.

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EXCERPTS FROM A STUDY OF RESIDENTIAL TREATMENT FOR CHILDREN WITH PSYCHOSOMATIC DISORDERS

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The psychosomatic pediatric ward at the University of Illinois Hospitals functions both as a treatment and research unit. This project was initiated more than four years ago, and has served to investigate several hypotheses formulated by the research staff in regard to the etiological factors in psychosomatic disorders and their application in treatment.

On psychosomatic illness. The following are summarized hypotheses made by the research staff.⁸ The points discussed are chosen for their pertinence to the discussion which follows, and are by no means considered complete.

1. During early infancy a noxious stimulus (physical or psychological) illicit a generalized response at the physiological level.

2. As the child develops adaptive and defensive mechanisms a greater variety of responses are made available. Similarly maturation of the central nervous system and increased voluntary muscular control modifies physical responses available to the growing infant.

3. The timing and intensity of the early traumatic experience partially determines the choice of psychosomatic disorder.

Physical illnesses, as ulcerative colitis, are thought to represent a reactivation of severe traumatic response. Hostility is self-directed and not easily controlled.

There is a strong indication that psychosomatic disorders have their roots in the very early life of the individual. Since the mother and child function as a unit during this early period, particular attention is paid to the emotional conflicts arising from this relationship. Therefore one of the aims of the staff on the psychosomatic pediatric ward is to offer the children experience with mother persons which would prove corrective for earlier relationships.³

In accordance with the thinking that the ego's integrative function is weak or easily threatened in the psychosomatically ill patient, a second

*Supervisor of occupational therapy, Psychosomatic Pediatric Unit, University of Illinois, Chicago.

general aim of the residential staff is to provide an environment conducive to ego growth.

Some concepts of growth. Although psychological growth follows an orderly pattern (if allowed to do so) it does not follow the chronological age of the child as closely as does the physical development. Yet each child has his own individual rate of maturation whether it be in areas of emotional, social or physical growth, and each of these areas will have its effect upon the other.

Encouragement of ego growth is an important part of any child care program and is an emphasized goal for the psychosomatically ill child. Ego growth is encouraged when substitutes are offered for gratifications denied. Minimizing opportunity for the child's interpretation of a situation as a hostile attack upon him will also make his world more conducive to ego growth.

Similarly, mastery will encourage growth of the ego.⁵ Have you ever seen a child's delight in taking his first steps or learning to ride his tricycle? These accomplishments make for feelings of reassurance that the child can control his own body at will. In more familiar terms, the child has gained in self-confidence. Mastery need not be restricted to motor accomplishments. Children will play out situations which they experienced as particularly anxiety-producing. They attempt to master these situations by repetitive reenactment in play when they have control of the situation.

In testing out new situations and abilities children will often go no farther than the adult's expectations (if these are within the child's capacity). If the adult conveys to the child an attitude of inadequacy, the child will himself feel incapable. The child's concept of what others expect of him is termed the ego ideal. Since the ego ideal is defined by the adult, his attitudes of approval or disapproval may mean the difference between the child's success or failure in mastering a situation.

The concept of the ego ideal explains, in part, a child's testing out of a new staff member until he learns what limitations will be set. It is important to understand that it is the attitude rather than the verbalized request or direction to which the child is most likely to react.

The context of residential treatment. To better understand the working of the residential treatment staff, the organization of the psychosomatic pediatric unit should be explained. At this writing, there are seven children on the ward, ages ranging from six to eleven years. Their diagnoses are ulcerative colitis, rheumatoid arthritis, encopresis with "psychogenic" megacolon and asthma. These children were referred for treat-

ment from the general pediatric ward at the University of Illinois Hospitals or by private physicians. Considerations for admission included: treatability, availability of the parent or parents for supportive therapy (if this was indicated), suitability of the case for research study and tentative assessment of how the child would fit in with the group of children already on the ward. The admissions were discussed at the weekly staff conferences.

The supervisory staff consists of two consulting or senior analysts, the administrative psychiatrist, who also serves as psychotherapist for three of the children, and a part-time pediatrician who is responsible for the medical aspects of treatment. In addition there are individual psychotherapists for the remaining four children, two psychologists and a social service worker. The residential activity program includes all ward personnel—nurses, school teacher on a part-time basis, student assistant and aides—and is coordinated by the occupational therapist under the guidance of the administrative psychiatrist and consulting psychoanalysts. Except for the medical responsibility, the roles of various staff members are not clearly defined and each person contributes according to his or her talents and according to the attachment which the child makes to satisfy some particular need. It is not unusual for a child to turn to one staff member for a close one-to-one relationship and then, as he grows emotionally, turn to another member.

There are no written prescriptions for the children. Insight and understanding of current problems are derived through discussion at weekly staff conferences. At this time the psychotherapists review their hours with the children. The residential staff presents the current ward behavior. Through interpretation of the behavior, when this is possible, under supervision of the senior analyst, the staff seeks to understand what the child is trying to convey to them.

For example, A.B., nine-year-old encopretic, was upon admission unable to relate to any staff member. Whenever a relationship seemed to appear, she would turn away from it. Review of history and current behavior suggested the child feared a close relationship meant the loss of the loved one. The sequence which followed was the expression of hostility by A.B. toward certain members of the staff. This behavior was reported by nurses and occupational therapist at the weekly conference and it was interpreted that A.B. was trying to communicate but could only do so via hostility and aggressiveness. The suggestion was made that more constructive outlets be found for the aggressiveness, and the female staff was instructed to avoid vigorous physical activity with A.B. while she was trying to relate.

This type of understanding is essential in modifying the attitudes of the staff toward a child. Since the child responds to the adult's attitude, even though it is not verbalized, insight and positive feelings for the child is an important aspect of the treatment program. No attempts are made by the staff to present false attitudes toward the children. The personnel is encouraged to be spontaneous and natural with the children and much of the program is set up to encourage positive relationships between child and adult. When a child is particularly irritating to a staff member, an interest in the problem is encouraged. As one senior analyst said, "If you can't love the child, love the problem."

The residential treatment program. It was earlier stated that there are certain basic considerations or goals upon which the ward program is based. Two general aims were later stated and will be repeated here for the reader's convenience in recalling them. They are: (1) to offer the children experience with mother persons which would prove corrective for earlier defective experience; (2) to provide an environment conducive to ego growth.

In order to decrease feelings of rejection in the children, to foster a dependent relationship when indicated, and to establish a closer rapport with the occupational therapist, each child is allowed one hour per week during which he can select the activity for the therapist and himself. The hours are on an optional basis, so that if the children do not feel the need for a one-to-one relationship privately with the occupational therapist, they are free to say so.

The following is a brief summary of individual hours spent with A., ten-year-old ulcerative colitis male, during the month of July, 1955. Prior to this time, the individual hours with the occupational therapist were consistently passive ones, during which time the main goal was to establish a working relationship with the child. A. would often provoke rejection by the therapist by fleeing to the toilet when she would appear for his hour. He was reassured that the writer would wait since it was understood that A. really needed the acceptance and warmth of a one-to-one relationship, but was unable to tolerate it due to anxiety. During this time, it was not uncommon for A. to simply not return to the place where the writer waited. Early in July, 1955, A. had expressed the desire to make something but could not bring himself to begin anything new and appeared threatened by a fear of failure. A. would rather suffer the tension from not finishing a project than face the possibility of failure which was, to him, the probable result of completion. The intensity of A.'s fear seemed due to his seeing the world as a destructive and

illogical place and a fear of losing control of his aggressive impulses.

July 5, 1955. A. expressed interest in beginning place-mats for his mother. All materials were ready for beginning the project. The first step was the measuring of the mats. A. sat frozen and watched me as I, seeing the situation as too threatening for him, began to measure. Suddenly he left the room to run to the toilet. On previous occasions he had withdrawn similarly and not returned, but instead had found something else to do. Expecting such a repeat performance, the equipment was put away. When A. returned much later, he asked why I had put away the materials and I explained, "I thought you weren't coming back," and made reference to the last time. This was an effort to help explain to him the logic which is possible in the world.

July 12, 1955. A. told therapist that he was not feeling well, and that he therefore didn't want any hour today.

July 19, 1955. Prior to his occupational therapy hour an extreme temper tantrum resulted due to A.'s denial that he had promised to write an article for the ward newspaper. He told me he didn't have time to write the article so I suggested that he take the time during that morning. A. attempted to erase this time by recruiting one of the nurses to play ping-pong with him. Since the nurse knew of A.'s previous promise to write the article, she told him she felt he should try to fulfill the promise. A. came to me for confirmation that he had not promised, but he was reminded that the promise had been made.

It was felt that to enter into the self-deception would be untherapeutic since then A. would have another reason for feeling this is an illogical world and that more responsibility was upon him than he could handle. Instead, the occupational therapist offered help in writing the article during his OT hour that afternoon. This help was offered to lessen the threat of the writing and to let A. know that the therapist was willing to help him and limit him when necessary.

That afternoon A. offered, "It's my hour now, isn't it?" He added, "I would like to make some ashtrays for my mother and then I would like to dictate some letters and my article to you." A. completed both ashtray and article.

July 27, 1955. A. began lettering on the place-mats. His attitude was a rather self-deprecating one, yet he did not withdraw and remained the entire hour.

August 3, 1955. A. indicated he was pleased with stenciling results. He said he thought the

letters were more interesting if they weren't perfect. (This comment was almost a repeat of what the writer had told him on the 27th). During a brief discussion on people being perfect, A. commented, "I'm not perfect." The writer explained that no one really was.

It is felt that the preceding summary illustrates some of the events instrumental in and indicative of the strengthening of A.'s ability to handle the conflicts between the individual needs and the pressure of the society in which he lives.

Among the factors operating here in favor of a corrective experience with the writer and ego growth are:

1. The relationship established between child and OT which made possible the security of the contact.
2. The support offered by the therapist whenever a situation appeared overly threatening to the child, perhaps more so because the gift was intended for the mother.
3. The reassurance to the child that the adult would limit him when necessary.
4. The exposure to a real frustration and help in working out the conflict.
5. Mastery, in the form of completing the ashtay and writing the article.
6. Attempts to point out to the child that the world is not as illogical and destructive as imagined.
7. Leaving open the opportunity for returning to the therapist and activity when ready.

A.'s record is at present being reviewed for purposes of comparative study with other ulcerative colitis patients. This voluminous data points up many periods of exacerbation and regression injected between periods of growth. One of the questions to be answered is factors active in causing the regressive periods.

The individual hours offer an opportunity for carrying out specific instructions from the psychiatrist. In May, 1955, B., five-year-old rheumatoid arthritic female showed a decrease in physical activity by refusing to ride her tricycle (her way of locomoting due to contracted hamstrings) and demanding to be carried. On May 26, during staff conference, it was explained that perhaps B. had regressed to the time during her childhood when her parents refused to allow the child to walk or climb freely. It was suggested that the occupational therapist spend time with her in a situation which would offer a new pleasurable experience with freedom in climbing and walking.

This experience was set up in the form of mat play and the first session with B. was one of free play on the mat with cushions for climbing. At the following staff conference it was felt that this type of activity should continue during the occupational therapy hour and that the exercises specific to B.'s disability could be incorporated during that period. The nurses reported that B. was already beginning to do more things for herself. The psychiatrist cautioned against over

encouragement of independence for B. at this point. It was explained that it is better to meet the child at an infantile level than to cause a set-back by forcing independence. This explanation was in accordance with the thinking that the psychosomatically ill child should be allowed to regress to his emotional level, so that he may fulfill the previously unmet needs necessary before growth is possible. *The regression is to meet the child's needs and not to allow acting out at that level.*

The occupational therapy hours which followed were a combination of enthusiastic activity on B.'s part and requests for a dependent relationship with the occupational therapist. For example on June 10, the hour began with B.'s crying out that she wanted to go to the bathroom and saying, "Nobody helps me anymore." This attitude was recognized as a need for dependence and a little "babying" and attention led to an attitude of wanting to climb and play on the mat. Near the end of the hour, B. lay down on the mat, commenting that she was tired and asked, "Will you cover me, Mother?" She was covered and rested her head in the therapist's lap.

These hours were continued until the next fall when B. exhibited so much activity during the day, including walking for several yards, that the occupational therapy hours in mat play were no longer required and therefore discontinued. Other active games and play were continued in their place.

During the fall months two new admissions on the ward made for less adult attention to B. This minimized attention, and the conflicts with which B. was currently dealing led to a gradual decrease in her physical activity and we again saw much demand for being carried and refusal to locomote whether by tricycle or walking. In addition, physiotherapy for B. was reduced.

By April, 1956, B.'s decrease in activity and return to dependent attitude was pronounced. During staff conference the senior analyst suggested that mat play simulating the home situation and encouraging movement be resumed.

The mat play was resumed and all staff made an effort to give B. the attention which she needed, so that she would not see independence or growing up as depriving. By May, there was a trend away from the overly dependent attitude and B. was walking a few steps, in spite of contractures. She was again riding her tricycle and had requested a climbing gym during her occupational therapy hour. In June, B. was observed doing considerable walking. The mat play was discontinued and other activities as bowling and dancing for short periods were initiated. B. no longer demanded to be carried and took pride in mastering better control of the tricycle and

general mastery in her daily living. By August 23, she was on roller skates for long periods.

Meeting the needs of the children is not, of course, confined to planned hours with them. The program allows time for them to initiate play or to request attention with the adults. For example, C., eleven-year-old ulcerative colitis male, would often approach the staff with pawing and requests to be "warmed up." Upon admission, this conduct was seen as seductive by the staff and was discouraged. After investigation of the child's history and observation on the ward, it was clarified that what C. really wanted was the affection which he needed and which had been denied him earlier. The only way C. could ask for this warmth and love was the way he had learned in his relationship with his mother, which was seductive in nature.

With this understanding, his demands could be more therapeutically met as exemplified by the incident of June 28. The writer was charting for the day before going home. C., who had complained of feeling "tired" and had gone to lie in his bed after supper, came into the office. He whined, "I'm cold, can I get warmed up?" The writer took him on her lap and he cuddled for a short time. Then he claimed he "was warm." He got up and sat in a chair, chatting about his experiences at camp, before he got sick. Then he recalled songs from his camping experiences and sang them enthusiastically. There had been a rather dramatic change in attitude and activity during this short incident.

As the children receive more security in a one-to-one relationship with an adult, their desire and capacity for group participation increases. They express their readiness by seeking out other children or asking the occupational therapist to initiate games.

The therapeutic use of the group is another means of attaining a corrective learning experience. Perhaps most illustrative of potentialities of the group-experience technique is an examination of the weekly children's conferences begun in July, 1955. These were initiated to offer the children an opportunity to express their opinions regarding various ward situations. At first the children used the time exclusively for planning their activities. To encourage expression during these meetings, the number of adults present was limited to one, the occupational therapist, and time was set aside during the meeting which was termed "gripe" period. As the children became more comfortable in voicing their feelings, the conferences began to include more serious matters, for example complaints and feelings about a new child on the ward.

The content of the meetings pointed out the rivalry often seen among the children especially

when a new admission threatens the status of the others. The fear that less adult attention would be given them was also verbalized. At some meetings the children have directly verbalized the fact that one child under discussion reminds them of a sibling.

At other meetings the children express their feelings about policies which they verbalize as being "mean"—there has been opportunity then for the occupational therapist to clarify reasons for the rules and regulations so that the children would not interpret them as hostility directed toward them. If a problem arises in psychotherapy which the psychotherapist feels can be dealt with at the children's conferences, their problem is referred to the occupational therapist. When a child reports another child actually struck him, verbal expression of anger is encouraged during the conference as a better way of handling "the feeling that you want to hit somebody." Quite often this sanction of expressing anger results in a verbal battle during the meeting, after which the children seem more friendly and less anxious.

Spontaneous dramatic play initiated by the children and encouraged with props which are requested has been a part of the program. At times the children take the roles of mother and father and play out the serious business of being grown up. As one child expressed it, "We're practicing for when we get older."

This "practice" seems an important step for these children all of whom have in one way or another expressed fear of growing up or the wish to remain little. In addition confusion about sexual identification may be worked through or at least pointed out to the observer. To date, the writer has observed some growth in all the children on the ward.

In studying this progress in the context of the psychosomatic residential treatment program, several findings on sequence and technique have been suggested:

1. Allowing the child to regress to the point where unfulfilled emotional needs can be met is an important aspect of treatment.
2. Security in a one-to-one relationship with the adult is prerequisite to more adequate participation in individual activity or group play.
3. Reassurance that the adult will limit the feared acting out of aggressiveness seems essential for more freedom in expression by these children.
4. Group experience can offer a therapeutic and learning experience for these children and must be geared according to the child's readiness to tolerate it.
5. Creative materials offer a context for externalizing and working out conflicts as well as outlets for energies and possibilities for mastery.

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*In writing this paper difficulty arose in pinpointing documentation because many of the concepts presented have become a part of the author's thinking through many discussions at conferences under the guidance of Dr. Irene M. Josselyn and Dr. George J. Mohr, and the child care course at the Institute for Psychoanalysis: lecturers, Helen Ross, Drs. Harold Balinkov and Samuel S. Barron. Consequently few direct references are given and the material presented has been selected from a combination of the writer's learning experience and readings during participation in the research study.

DELEGATES DIVISION

HAWAII

Delegate-Reporter, Dorothy B. Y. Park, O.T.R.

The National slogan, "Communications—Members," was paramount in the functions of the Occupational Therapy Association of Hawaii. Not only did we enlarge our membership to include 49 active members, four associates, and two fellows, but in the endeavor to carry on our basic aims, members received a barrage of information concerning committee and AOTA programs and functions; every available channel of communication was utilized to promote occupational therapy and our association's endeavors; a therapist from each field of disability volunteered to form a speaker's bureau; and to date a complete file on occupational therapy schools, brochures and pamphlets concerning our profession has been compiled and on hand at Maluhia Hospital to be used by interested individuals. Along with the organization of a speaker's bureau, a complete set of color slides and black and white photographs was taken to include different media and techniques used in each disability area.

Having envisioned a continuing growth of occupational therapy being encompassed in the hospital programs, the Hawaii Association is becoming more aware of the necessity in keeping abreast with the community and professional demands placed on the therapists, therefore, the speaker's bureau was organized and presently utilized by the community health and welfare agencies and schools. The constitution and by-laws are being brought up to a workable state. Community and national organizations, covering our professional area of interest have received us as a contributing association, not only monetarily, but also in the endeavor to derive reciprocal benefits.

Being mindful of our community obligations in broadening our horizon, the program for the year 1956-57 encompassed such discussions as communism in the Territory and the functions of the Better Business Bureau. Besides these, we participated in a demonstration of wood construction and wood finishing, heard a discussion on group dynamics and saw a movie called "One Out of Ten." This particular movie depicting the different phases of psychiatric treatment was photographed at Territorial Hospital.

The annual calendar sale was very successful with about 99% of the 1500 printed being sold. The sale of calendars is a fund raising project for the scholarship awarded yearly. In 1956, Doris Sakai, presently attending Boston School of Occupational Therapy, was the scholarship recipient.

OFFICERS

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KENTUCKY

Delegate-Reporter, Gwindolyn Board, O.T.R.

The Kentucky Occupational Therapy Association has had a most successful year in spite of the loss by transfer to other states almost simultaneously of our president, vice president and delegate.

In the fall, a joint meeting with the Kentucky Physical Therapy Association gave both associations the opportunity of hearing Dr. Israel Muss report on the World Congress of Physical Medicine in Copenhagen during the summer. He highlighted the talk with slides showing treatment and also slides depicting outstanding art of Copenhagen.

A yearly highlight is our annual joint meeting with the Indiana Occupational Therapy Association. The meeting this year was in Louisville with many from Indiana in attendance. The day began with a craft display by Puritan Cord Company in the Kentucky Hotel where Dr. Harold McPheeter, commissioner of Kentucky state mental health, spoke on "Outline of a Program for the Use of Occupational Therapy in a Public Mental Hospital."

Lunch was served at Old House with Dr. Ronald Kaplan of Veterans Administration giving an interesting discussion and demonstration of the therapeutic uses of hypnosis. The day's activities closed with tours planned to various occupational therapy departments in and around Louisville representing all disability groups.

We were highly honored to have Mrs. Winifred

Kahmann, O.T.R., director of occupational and physical therapy of Indiana University Medical Center, give a report on the Indiana school of occupational therapy. The day was climaxed with Miss Rheta Glueck, director of public information from the national office, being present and giving us some pertinent recruitment help. Our interest and efforts in recruitment of occupational therapy students have been upmost in this year's work. We hope to do more in the coming years with other allied professions as teams visiting various schools.

This year we are working for more newspaper publicity concerning our meetings; thus attempting to educate the public about occupational therapy.

OFFICERS

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NEBRASKA

Delegate-Reporter, Dorothy B. Schlegel, O.T.R.

One of the aims of the Nebraska Occupational Therapy Association was to present a varied program to meet the interests of the varied members.

In accomplishing this aim, our meetings included one with the physical therapists emphasizing the psychological approach to the severely handicapped. This meeting was in conjunction with the Nebraska Hospital Association. Another meeting was held at the Nebraska Psychiatric Institute with the Nebraska Society of Neurology and Psychiatry, the topic being child psychiatry.

A survey of occupational therapy and occupational therapy aides was made in the Nebraska institutions. Proposed pay schedule for registered occupational therapists, coordinators and occupational therapy aides, and reclassification of other positions were recommended.

Interest in recruitment has continued throughout the year with individual members having given talks on occupational therapy at high school career conferences and to other interested groups.

The revival of the NOTA newsletter was welcomed by the entire membership which consists of twelve active members and nine associate members.

OFFICERS

President.....H. Dwyer Dundon, O.T.R.
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SOUTHERN CALIFORNIA

Delegate-Reporter, Janet Stone, O.T.R.

The Southern California Occupational Therapy Association has spent a year in which attention has been focused on objectives of very differing natures.

A comprehensive survey of occupational therapists in the area was carried out as the basis for a campaign to increase active membership in the Association. Special letters and telephone contacts were successful in increasing the membership by 35%. Recruitment and publicity were furthered by the development of a readily portable exhibit with subject matter that can be varied for different exhibit purposes and by the services of a speaker's bureau.

AJOT XI, 4, 1957, Part II

Of great concern to us was the consideration by the California State Personnel Board to substitute experience for educational requirements for occupational therapy positions. This problem was met by a letter from the SCOTA board and by sending a representative from SCOTA to the board hearing in Sacramento. This action was influential in the final outcome of the hearing which was in favor of keeping existing requirements.

The study of the revision of house organs was very worthwhile in promoting better understanding of the national organization and led to many concrete suggestions for revision of our own constitution.

The caliber of the programs presented has been outstanding, with a particularly noteworthy joint meeting being held with the Northern California Occupational Therapy Association. Two very worthwhile days were spent in the presentation and discussion of the findings and conclusions of the NIMH-AOTA project, the child amputee prosthetic research project at UCLA and Margaret Rood's work with the activation and inhibition of muscles by sensory stimuli.

Perhaps our proudest accomplishment is the formation of a medical advisory board. This is a project on which we have been working for several years, and we feel that the enthusiastic response from the physicians contacted justifies the thought and planning which has gone into this project.

OFFICERS

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An advanced course in physical rehabilitation will be offered by the Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center in conjunction with the New York University School of Education. The course carries four points of either undergraduate or graduate credit and will be given from November 18 to December 13, 1957, February 3 to 28, 1958, or April 28 to May 23, 1958.

The course will cover severe disabilities and their specific problems and programs of functional activities. Opportunities for clinical experience will be given under supervision.

Tuition will be \$120.00 with a \$7.00 registration fee. For further information contact Mrs. Edith Buchwald Lawton at the Institute.

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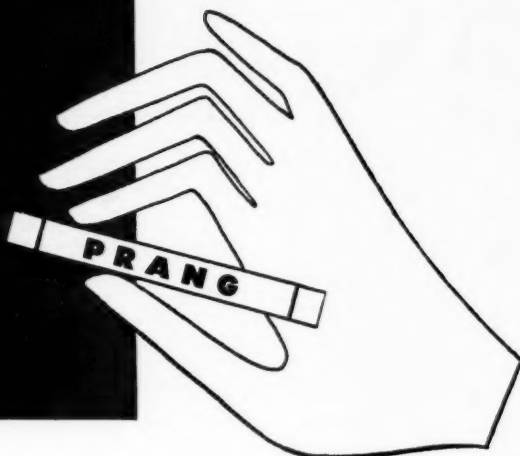
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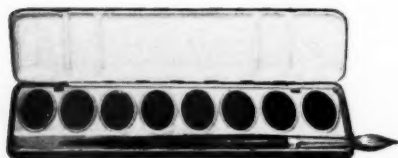
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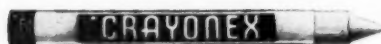


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